

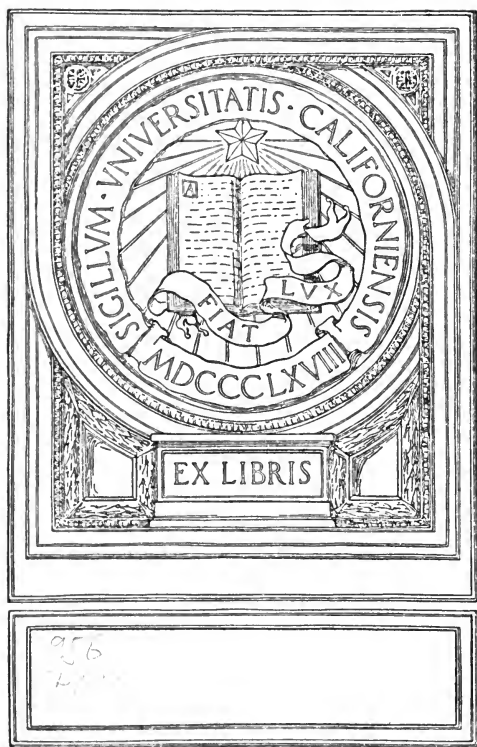
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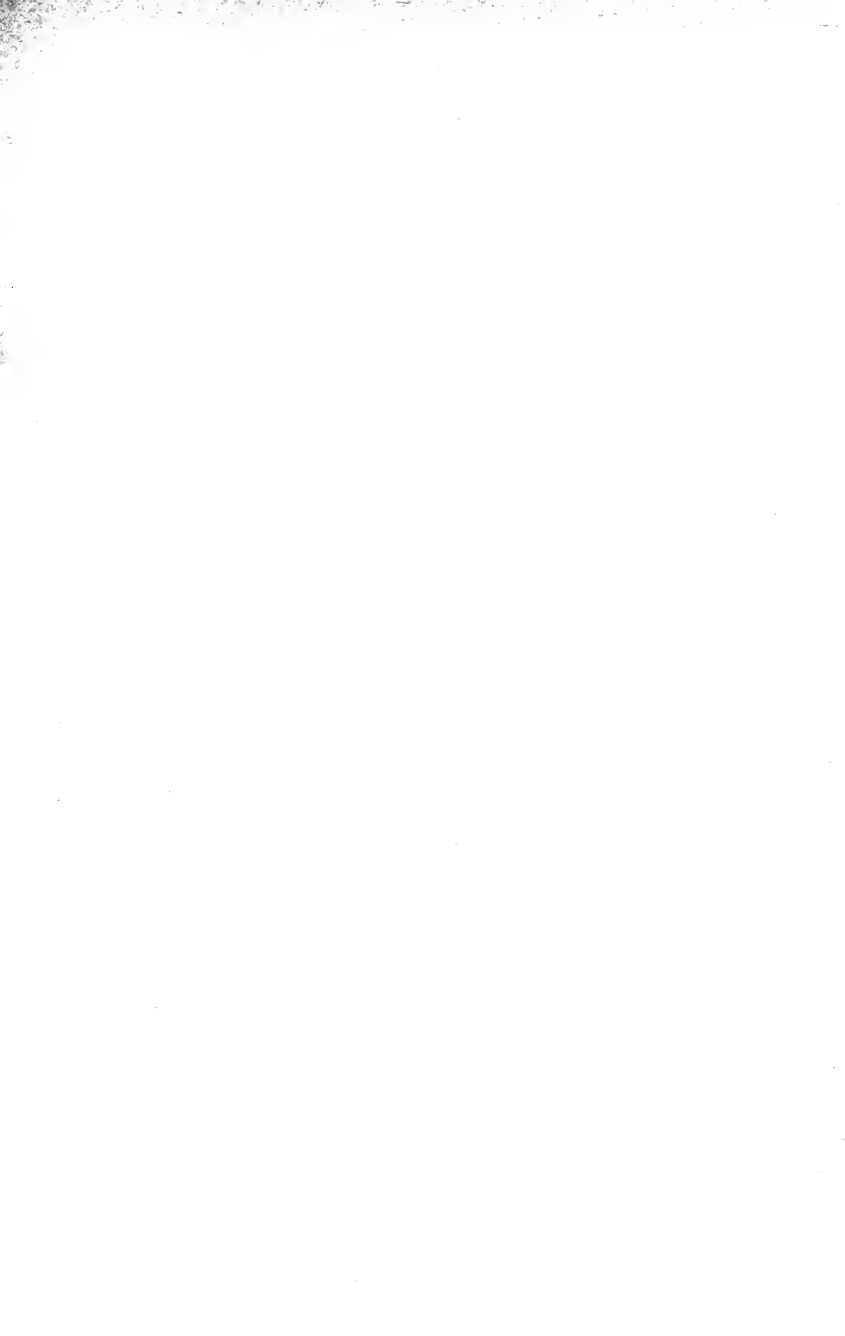


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YOUNG VOYAGERS









THE YOUNG VOYAGEURS;

OR, THE

BOY HUNTERS IN THE NORTH.

CAPTAIN MAYNE REID,

AUTHOR OF "THE BOY HUNTERS," "THE DESERT HOME," ETC.

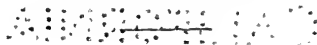
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A NEW EDITION,

WITH A MEMOIR BY R. H. STODDARD.

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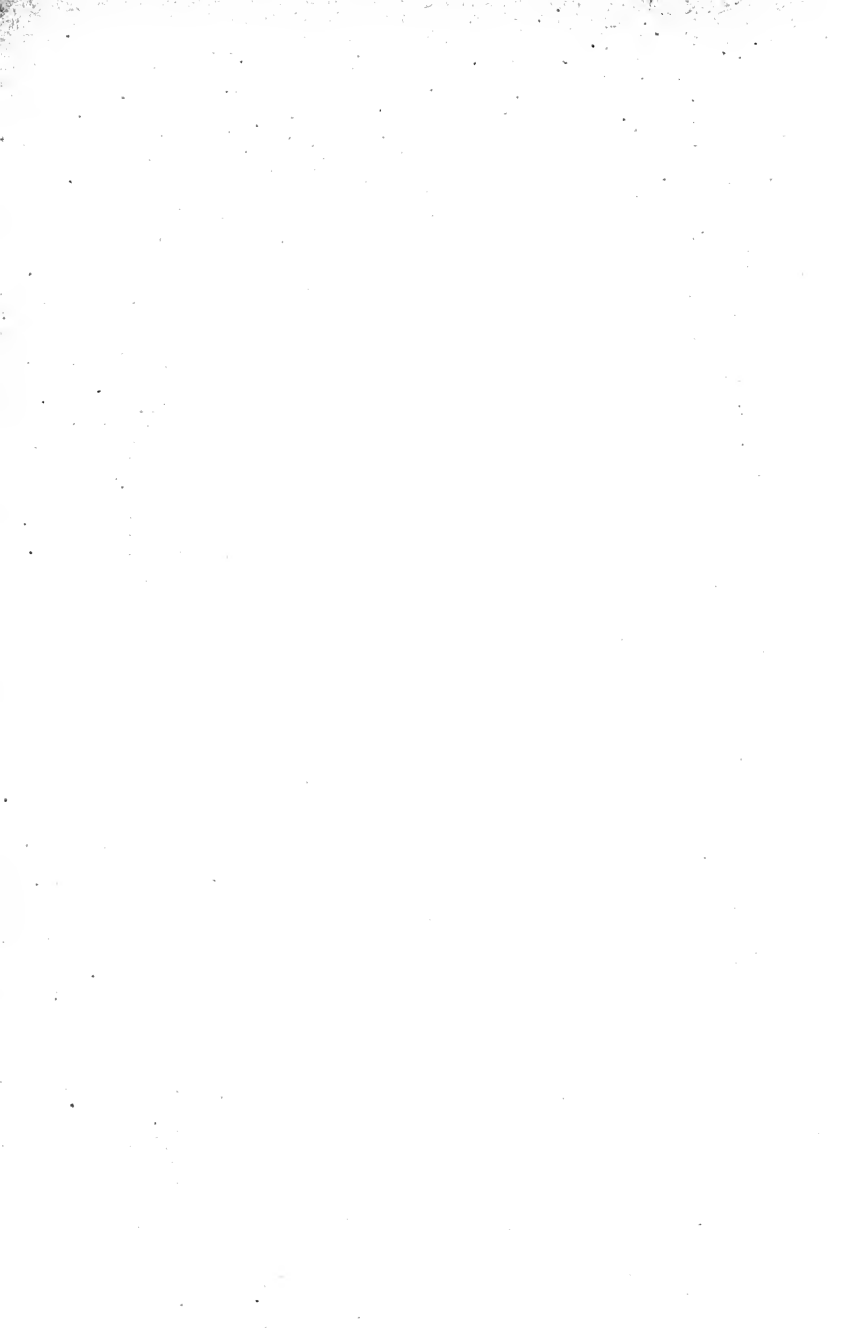
I accept the terms offered, and hereby concede to you the exclusive right of publication, in the United States, of all my juvenile Tales of Adventure, known as Boys' Novels.

MAYNE REID.

KIND FATHER,
GENTLE AND AFFECTIONATE MOTHER,
ACCEPT THIS TRIBUTE OF
A SON'S GRATITUDE.

MAYNE REID

M22160



MEMOIR OF MAYNE REID.

No one who has written books for the young during the present century ever had so large a circle of readers as Captain Mayne Reid, or ever was so well fitted by circumstances to write the books by which he is chiefly known. His life, which was an adventurous one, was ripened with the experience of two Continents, and his temperament, which was an ardent one, reflected the traits of two races. Irish by birth, he was American in his sympathies with the people of the New World, whose acquaintance he made at an early period, among whom he lived for years, and whose battles he helped to win. He was probably more familiar with the Southern and Western portion of the United States forty years ago than any native-born American of that time. A curious interest attaches to the life of Captain Reid, but it is not of the kind that casual biographers dwell upon. If he had written it himself it would have charmed thousands of readers, who can now merely imagine what it might have been from the glimpses of it which they obtain in his writings. It was not passed in the fierce light of publicity, but in that simple, silent obscurity which is the lot of most men, and is their happiness, if they only knew it.

Briefly related, the life of Captain Reid was as follows: He was born in 1818, in the north of Ireland, the son of a Presbyterian clergyman, who was a type of the class which Goldsmith has described so freshly in the "Deserted Village," and was highly thought of for his labors among the poor of his neighborhood. An earnest, reverent man, to whom his calling was indeed a sacred one, he designed his son Mayne for the ministry, in the hope, no doubt, that he would be his successor. But nature had something to say about that, as well as his good father. He began to study for the ministry, but it was not long before

he was drawn in another direction. Always a great reader, his favorite books were descriptions of travel in foreign lands, particularly those which dealt with the scenery, the people, and the resources of America. The spell which these exercised over his imagination, joined to a love of adventure which was inherent in his temperament, and inherited, perhaps with his race, determined his career. At the age of twenty he closed his theological tomes, and girding up his loins with a stout heart he sailed from the shores of the Old World for the New. Following the spirit in his feet he landed at New Orleans, which was probably a more promising field for a young man of his talents than any Northern city, and was speedily engaged in business. The nature of this business is not stated, further than it was that of a trader; but whatever it was it obliged this young Irishman to make long journeys into the interior of the country, which was almost a *terra incognita*. Sparsely settled, where settled at all, it was still clothed in primeval verdure—here in the endless reach of savannas, there in the depth of pathless woods, and far away to the North and the West in those monotonous ocean like levels of land for which the speech of England has no name—the Prairies. Its population was nomadic, not to say barbaric, consisting of tribes of Indians whose hunting grounds from time immemorial the region was; hunters and trappers, who had turned their backs upon civilization for the free, wild life of nature; men of doubtful or dangerous antecedents, who had found it convenient to leave their country for their country's good; and scattered about hardy pioneer communities from Eastern States, advancing waves of the great sea of emigration which is still drawing the course of empire westward. Travelling in a country like this, and among people like these, Mayne Reid passed five years of his early manhood. He was at home wherever he went, and never more so than when among the Indians of the Red River territory, with whom he spent several months, learning their language, studying their customs, and enjoying the wild and beautiful scenery of their camping grounds. Indian for the time, he lived in their lodges, rode with them, hunted with them, and night after night sat by their blazing camp-fires listening to the warlike stories of the braves and the quaint legends of the medicine men. There was that in the blood of Mayne Reid which fitted him to lead this life at this time, and whether he knew it or not it

educated his genius as no other life could have done. It familiarized him with a large extent of country in the South and West; it introduced him to men and manners which existed nowhere else; and it revealed to him the secrets of Indian life and character.

There was another side, however, to Mayne Reid than that we have touched upon, and this, at the end of five years, drew him back to the average life of his kind. We find him next in Philadelphia, where he began to contribute stories and sketches of travel to the newspapers and magazines. Philadelphia was then the most literate city in the United States, the one in which a clever writer was at once encouraged and rewarded. Frank and warm-hearted, he made many friends there among journalists and authors. One of these friends was Edgar Allan Poe, whom he often visited at his home in Spring Garden, and concerning whom years after, when he was dead, he wrote with loving tenderness.

The next episode in the career of Mayne Reid was not what one would expect from a man of letters, though it was just what might have been expected from a man of his temperament and antecedents. It grew out of the time, which was warlike, and it drove him into the army with which the United States speedily crushed the forces of the sister Republic—Mexico. He obtained a commission, and served throughout the war with great bravery and distinction. This stormy episode ended with a severe wound, which he received in storming the heights of Chapultepec—a terrible battle which practically ended the war.

A second episode of a similar character, but with a more fortunate conclusion, occurred about four years later. It grew out of another war, which, happily for us, was not on our borders, but in the heart of Europe, where the Hungarian race had risen in insurrection against the hated power of Austria. Their desperate valor in the face of tremendous odds excited the sympathy of the American people, and fired the heart of Captain Mayne Reid, who buckled on his sword once more, and sailed from New York with a body of volunteers to aid the Hungarians in their struggles for independence. They were too late, for hardly had they reached Paris before they learned that all was over: Görgey had surrendered at Arad, and Hungary was crushed. They were at once dismissed, and Captain Reid betook himself to London.

The life of the Mayne Reid in whom we are most interested—Mayne Reid, the author—began at this time, when he was in his thirty-first year, and ended only on the day of his death, October 21, 1883. It covered one-third of a century, and was, when compared with that which had preceded it, uneventful, if not devoid of incident. There is not much that needs be told—not much, indeed, that can be told—in the life of a man of letters like Captain Mayne Reid. It is written in his books. Mayne Reid was one of the best known authors of his time—differing in this from many authors who are popular without being known—and in the walk of fiction which he discovered for himself he is an acknowledged master. His reputation did not depend upon the admiration of the millions of young people who read his books, but upon the judgment of mature critics, to whom his delineations of adventurous life were literature of no common order. His reputation as a story-teller was widely recognized on the Continent, where he was accepted as an authority in regard to the customs of the pioneers and the guerilla warfare of the Indian tribes, and was warmly praised for his freshness, his novelty, and his hardy originality. The people of France and Germany delighted in this soldier-writer. “There was not a word in his books which a school-boy could not safely read aloud to his mother and sisters.” So says a late English critic, to which another adds, that if he has somewhat gone out of fashion of late years, the more’s the pity for the school-boy of the period. What Defoe is in Robinson Crusoe—realistic idyl of island solitude—that, in his romantic stories of wilderness life, is his great scholar, Captain Mayne Reid.

R. H. STODDARD.

P R E F A C E .

IN the "Boy Hunters" the Author endeavored to illustrate the *fauna* of the temperate zone of the American Continent. In doing this, however, many animals, and particularly that interesting class known as the "fur-bearing animals," could not be introduced without "bringing the mountain to Mahomet." To avoid this, the "Boy Hunters"—under the name of the "Young Voyageurs"—have made a grand journey through the "fur-countries," where, as will be seen, they have met with nearly all the wild creatures that inhabit that cold and desolate region. The Author begs leave here to repeat that he is "not conscious of having taken any liberty, for the sake or effect, with the laws of nature—with its *fauna* or its *flora*. Neither plant nor tree, bird nor mammal, has been pressed into service *beyond the limits of its geographical range*; although, in illustrating the habits or history of God's wild creatures, he has often selected only their more peculiar characteristics."

If the "Young Voyageurs" receive only as much applause in their new character, as they did in that of the "Boy Hunters," the Author will have no reason to complain of his "boy public."

LONDON. November, 1853.



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THE YOUNG VOYAGEURS.

CHAPTER I.

THE FUR COUNTRIES.

BEY READER, you have heard of the Hudson's Bay Company? Ten to one, you have worn a piece of fur, which it has provided for you; if not, your pretty little sister has—in her muff, or her boa, or as a trimming for her winter dress. Would you like to know something of the country whence come these furs?—of the animals whose backs have been stripped to obtain them? As I feel certain that you and I are old friends, I make bold to answer for you, Yes. Come, then! let us journey together to the “Fur Countries;” let us cross them from south to north.

A vast journey it will be. It will cost us many thousand miles of travel. We shall find neither railway train, nor steamboat, nor stage coach, to carry us on our way. We shall not even have the help of a horse. For us no hotel shall spread its luxurious board; no road-side inn shall hang out its inviting sign and “clean beds ” no roof of any kind shall

offer us its hospitable shelter. Our table shall be a rock, a log, or the earth itself; our lodging a tent; and our bed the skin of a wild beast. Such are the best accommodations we can expect upon our journey. Are you still ready to undertake it? Does the prospect not deter you?

No, I hear you exclaim. I shall be satisfied with the table — what care I for mahogany? With the lodging — I can tent like an Arab. With the bed — fling feathers to the wind!

Enough, brave boy! you shall go with me to the wild regions of the “north-west,” to the far “fur countries” of America. But, first — a word about the land through which we are going to travel.

Take down your Atlas. Bend your eye upon the map of North America. Note two large islands — one upon the right side, Newfoundland; another upon the left, Vancouver. Draw a line from one to the other; it will nearly bisect the continent. North of that line you behold a vast territory. How vast? You may take your scissors, and clip fifty Englands out of it! There are lakes there in which you might drown England, or make an island of it! Now you may form some idea of the vastness of that region known as the “fur countries.”

Will you believe me when I tell you that all this immense tract is a wilderness — a howling wilderness, if you like a poetical name? It is even so. From north to south, from ocean to ocean, throughout all that vast domain, there is neither town nor village — hardly any thing that can be dignified with the name of “settlement.” The only signs of civilization

to be seen are the "forts," or trading posts, of the Hudson's Bay Company; and these "signs" are few and far — hundreds of miles — between. For inhabitants the country has less than ten thousand white men, the *employés* of the Company; and its native people are Indians of many tribes, living far apart, few in numbers, subsisting by the chase, and half starving for at least a third part of every year! In truth, the territory can hardly be called "inhabited." There is not a man to every ten miles; and in many parts of it, you may travel hundreds of miles without seeing a face, red, white, or black!

The physical aspect is, therefore, entirely wild. It is very different in different parts of the territory. One tract is peculiar. It has been long known as the "Barren Grounds." It is a tract of vast extent. It lies north-west from the shores of Hudson's Bay, extending nearly to the Mackenzie River. Its rocks are *primitive*. It is a land of hills and valleys — of deep, dark lakes and sharp-running streams. It is a woodless region. No timber is found there that deserves the name. No trees but glandular dwarf birches, willows, and black spruce, small and stunted. Even these only grow in isolated valleys. More generally the surface is covered with coarse sand, — the *débris* of granite or quartz rock, — upon which no vegetable, save the lichen or the moss, can find life and nourishment. In one respect these "Barren Grounds" are unlike the deserts of Africa; they are well watered. In almost every valley there is a lake; and though many of these are landlocked, yet do they contain fish of several species. Sometimes these lakes

communicate with each other by means of rapid and turbulent streams passing through narrow gorges and lines of those connected lakes form the great rivers of the district.

Such is a large portion of the Hudson's Bay territory. Most of the extensive peninsula of Labrador partakes of a similar character; and there are other like tracts west of the Rocky Mountain range in the "Russian possessions."

Yet these "Barren Grounds" have their denizens. Nature has formed animals that delight to dwell there, and that are never found in more fertile regions. Two ruminating creatures find sustenance upon the mosses and lichens that cover their cold rocks: they are the caribou (reindeer) and the musk-ox. These, in their turn, become the food and subsistence of preying creatures. The wolf, in all its varieties of gray, black, white, pied, and dusky, follows upon their trail. The "brown bear" — a large species, nearly resembling the "grizzly" — is found only in the Barren Grounds, and the great "Polar bear" comes within their borders, but the latter is a dweller upon their shores alone, and finds his food among the finny tribes of the seas that surround them. In marshy ponds, existing here and there, the musk-rat (*Fiber zibethicus*) builds his house, like that of his larger cousin, the beaver. Upon the waters edge he finds subsistence; but his natural enemy, the wolverene (*Gulo luscus*), skulks in the same neighborhood. The "Polar hare" lives upon the leaves and twigs of the dwarf birch-tree; and this, transformed into its own white flesh, becomes the food of the Arctic fox. The herbage, sparse though it be,

does not grow in vain. The seeds fall to the earth, but they are not suffered to decay. They are gathered by the little lemmings and meadow-mice (*arvicolæ*), who, in their turn, become the prey of two species of *mustelidæ*, the ermine and vison weasels. Have the fish of the lakes no enemy? Yes — a terrible one in the Canada otter. The mink-weasel, too, pursues them; and in summer, the ospray, the great pelican, the cormorant, and the white-headed eagle.

These are the *fauna* of the Barren Grounds. Man rarely ventures within their boundaries. The wretched creatures who find a living there are the Esquimaux on their coasts, and a few Chippewa Indians in the interior, who hunt the caribou, and are known as "caribou-eaters." Other Indians enter them only in summer, in search of game, or journeying from point to point; and so perilous are these journeyings, that numbers frequently perish by the way. There are no white men in the Barren Grounds. The "Company" has no commerce there. No fort is established in them; so scarce are the fur-bearing animals of these parts, their skins would not repay the expense of a "trading post."

Far different are the "wooded tracts" of the fur countries. These lie mostly in the southern and central regions of the Hudson's Bay territory. There are found the valuable beaver, and the wolverene that preys upon it. There dwells the American hare, with its enemy, the Canada lynx. There are the squirrels, and the beautiful martens (sables) that hunt them from tree to tree. There are found the foxes of every variety, the red, the cross, and the rare and

highly-prized silver fox (*Vulpes argentatus*), whose shining skin sells for its weight in gold! There, too, the black bear (*Ursus Americanus*) yields its fine coat to adorn the winter carriage, the holsters of the dragoon, and the shako of the grenadier. There the fur-bearing animals exist in greatest plenty, and many others whose skins are valuable in commerce, as the moose, the wapiti, and the wood-bison.

But there is also a "prairie" district in the fur countries. The great table prairies of North America, that slope eastward from the Rocky Mountains, also extend northward into the Hudson's Bay territory. They gradually grow narrower, however, as you proceed farther north, until, on reaching the latitude of the Great Slave Lake, they end altogether. This "prairie land" has its peculiar animals. Upon it roams the buffalo, the prong-horned antelope, and the mule-deer. There, too, may be seen the "barking wolf" and the "swift fox." It is the favorite home of the marmots, and the gauffres or sand-rats; and there, too, the noblest of animals, the horse, runs wild.

West of this prairie tract is a region of far different aspect — the region of the Rocky Mountains. This stupendous chain, sometimes called the Andes of North America, continues throughout the fur countries from their southern limits to the shores of the Arctic Sea. Some of its peaks overlook the waters of that sea itself, towering up near the coast. Many of these, even in southern latitudes, carry the "eternal snow." This "mountain-chain" is, in places, of great breadth. Deep valleys lie in its

embrace, many of which have never been visited by man. Some are desolate and dreary; others are oases of vegetation, which fascinate the traveller whose fortune it has been, after toiling among naked rocks, to gaze upon their smiling fertility. These lovely wilds are the favorite home of many strange animals. The argali, or mountain-sheep, with his huge curving horns, is seen there; and the shaggy wild goat bounds along the steepest cliffs. The black bear wanders through the wooded ravines; and his fiercer congener, the "grizzly," — the most dreaded of all American animals, — drags his huge body along the rocky declivities.

Having crossed the mountains, the fur countries extend westward to the Pacific. There you encounter barren plains, treeless and waterless; rapid rivers, that foam through deep, rock-bound channels; and a country altogether rougher in aspect, and more mountainous, than that lying to the east of the great chain. A warmer atmosphere prevails as you approach the Pacific, and in some places forests of tall trees cover the earth. In these are found most of the fur-bearing animals; and, on account of the greater warmth of the climate, the true *felidæ* — the long-tailed cats — here wander much farther north than upon the eastern side of the continent. Even so far north as the forests of Oregon, these appear in the forms of the cougar (*Felis concolor*) and the ounce (*Felis onca*.)

But it is not our intention at present to cross the Rocky Mountains. Our journey will lie altogether on the eastern side of that great chain. It will extend

from the frontiers of civilization to the shores of the Arctic Sea. It is a long and perilous journey, boy reader : but as we have made up our minds to it, let us ~~waste~~ no more time in talking, but set forth at once. You are ready? Hurrah!

CHAPTER II.

THE YOUNG VOYAGEURS

THERE is a canoe upon the waters of Red River — Red River of the north. It is near the source of the stream, but passing downward. It is a small canoe, a frail structure of birch bark, and contains only four persons. They are all young — the eldest of them evidently not over nineteen years of age, and the youngest about fifteen.

The eldest is nearly full grown, though his body and limbs have not yet assumed the muscular development of manhood. His complexion is dark, nearly olive. His hair is jet black, straight as an Indian's, and long. His eyes are large and brilliant, and his features prominent. His countenance expresses courage, and his well-set jaws betoken firmness and resolution. He does not belie his looks, for he possesses these qualifications in a high degree. There is a gravity in his manner somewhat rare in one so young; yet it is not the result of a morose disposition, but a subdued temperament, produced by modesty, good sense, and much experience. Neither has it the air of stupidity. No: you could easily tell that the mind of this youth, if once roused, would exhibit both energy and alertness. His quiet manner has a far different expression. It is an air of coolness and confi-

dence which tells you he has met with dangers in the past, and would not fear to encounter them again. It is an expression peculiar, I think, to the hunters of the "Far West,"—those men who dwell amidst dangers in the wild regions of the great prairies. Their solitary mode of life begets this expression. They are often for months without the company of a creature with whom they may converse—months without beholding a human face. They live alone with Nature, surrounded by her majestic forms. These awe them into habits of silence. Such was, in point of fact, the case with the youth whom we have been describing. He had hunted much, though not as a professional hunter. With him the chase had been followed merely as a pastime; but its pursuit had brought him into situations of peril, and in contact with Nature in her wild solitudes. Young as he was, he had journeyed over the grand prairies, and through the pathless forests of the West. He had slain the bear and the buffalo, the wildcat and the cougar. These experiences had made their impression upon his mind, and stamped his countenance with that air of gravity we have noticed.

The second of the youths whom we shall describe is very different in appearance. He is of blonde complexion, rather pale, with fair silken hair that waves gently down his cheeks, and falls upon his shoulders. He is far from robust. On the contrary, his form is thin and delicate. It is not the delicacy of feebleness or ill health, but only a body of slighter build. The manner in which he handles his oar shows that he possesses both health and strength,

though neither in such a high degree as the dark youth. His face expresses, perhaps, a larger amount of intellect, and it is a countenance that would strike you as more open and communicative. The eye is blue and mild, and the brow is marked by the paleness of study and habits of continued thought. These indications are no more than just, for the fair-haired youth is a student, and one of no ordinary attainments. Although only seventeen years of age, he is already well versed in the natural sciences; and many a graduate of Oxford or Cambridge would but ill compare with him. The former might excel in the knowledge — if we can dignify it by that name — of the laws of scansion, or in the composition of Greek idyls; but in all that constitutes *real* knowledge he would prove but an idle theorist, a dreamy imbecile alongside our practical young scholar of the West. ✓

The third and youngest of the party — taking them as they sit from stem to bow — differs in many respects from both those described. He has neither the gravity of the first, nor yet the intellectuality of the second. His face is round, and full, and ruddy. It is bright and smiling in its expression. His eye dances merrily in his head, and its glance falls upon every thing. His lips are hardly ever at rest. They are either engaged in making words — for he talks almost incessantly — or else contracting and expanding with smiles and joyous laughter. His cap is jantily set, and his fine brown curls, hanging against the rich roseate skin of his cheeks, give to his countenance an expression of extreme health and boyish beauty. His merry laugh and free air tell you he is

not the boy for books. He is not much of a hunter either. In fact, he is not particularly given to any thing — one of those easy natures who take the world as it comes, look upon the bright side of every thing, without getting sufficiently interested to excel in any thing.

These three youths were dressed nearly alike. The eldest wore the costume, as near as may be, of a backwoods hunter — a tunic-like hunting-shirt, of dressed buckskin, leggings and moccasins of the same material, and all — shirt, leggings, and moccasins — handsomely braided and embroidered with stained quills of the porcupine. The cape of the shirt was tastefully fringed, and so was the skirt, as well as the seams of the moccasins. On his head was a hairy cap of raccoon skin, and the tail of the animal, with its dark, transverse bars, hung down behind like the drooping plume of a helmet. Around his shoulders were two leathern belts that crossed each other upon his breast. One of these slung a bullet pouch, covered with a violet-green skin that glittered splendidly in the sun. It was from the head of the "wood-duck" (*Anas sponsa*), the most beautiful bird of its tribe. By the other strap was suspended a large crescent-shaped horn taken from the head of an Opelousas bull, and carved with various ornamental devices. Other smaller implements hung from the belts, attached by leathern thongs: there was a picker, a wiper, and a steel for striking fire with. A third belt — a broad stout one of alligator leather — encircled the youth's waist. To this was fastened a holster, and the shining but of a pistol could be seen protrud-

ing out; a hunting-knife of the kind denominated "bowie" hanging over the left hip, completed his "arms and accoutrements."

The second of the youths was dressed, as already stated, in a somewhat similar manner, though his accoutrements were not of so warlike a character. Like the other, he had a powder horn and pouch, but instead of knife and pistol, a canvas bag or haversack hung from his shoulder; and had you looked into it, you would have seen that it was half filled with shells, pieces of rock, and rare plants, gathered during the day — the diurnal storehouse of the geologist, the palæontologist, and botanist — to be emptied for study and examination by the night camp fire. Instead of the 'coon-skin cap he wore a white felt hat with broad leaf; and for leggings and moccasins he had trousers of blue cottonade, and laced buskins of tanned leather.

The youngest of the three was dressed and accoutred much like the eldest, except that his cap was of blue cloth — somewhat after the fashion of the military forage cap. All three wore shirts of colored cotton, the best for journeying in these uninhabited regions, where soap is scarce, and a laundress not to be had at any price.

Though very unlike one another, these three youths were brothers. I knew them well. I had seen them before -- about two years before — and though each had grown several inches taller since that time, I had no difficulty in recognizing them. Even though they were now two thousand miles from where I had formerly encountered them, I could not be mistaken as to

their identity. Beyond a doubt, they were the same brave young adventurers whom I had met in the swamps of Louisiana, and whose exploits I had witnessed upon the prairies of Texas. They were the "Boy Hunters" — Basil, Lucien, François! I was right glad to renew acquaintance with them. Boy reader, do you share my joy?

But whither go they now? They are full two thousand miles from their home in Louisiana. The Red River upon which their canoe floats is not that Red River whose blood-like waters sweep through the swamps of the hot South — the home of the alligator and the gar. No, it is a stream of a far different character, though also one of great magnitude. Upon the banks of the former ripens the rice-plant, and the sugar-cane waves its golden tassels high in the air. There, too, flourishes the giant reed (*Arundo gigantea*), the fan palm (*Chamærops*), and the broad-leaved magnolia, with its huge snow-white flowers. There the aspect is Southern, and the heat tropical for most part of the year.

All this is reversed on the Red River of the North. It is true that on its banks sugar is also produced; but it is no longer from a plant, but a lordly tree — the great sugar-maple (*Acer saccharinum*). There is rice, too — vast fields of rice upon its marshy borders; but it is not the pearly grain of the South. It is the wild rice, "the water oats" (*Zizania aquatica*), the food of millions of winged creatures, and thousands of human beings as well. Here for three fourths of the year the sun is feeble, and the aspect that of winter. For months the cold waters are

bound up in an icy embrace. The earth is covered with thick snow, over which rise the needle-leaved *coniferae* — the pines, the cedars, the spruce, and the hemlock. Very unlike each other are the countries watered by the two streams, the Red River of the South and its namesake of the North.

But whither go our Boy Hunters in their birch-bark canoe? The river upon which they are *voyaging* runs due northward into the great lake Winnipeg. They are floating with its current, and consequently increasing the distance from their home. Whither go they?

The answer leads us to some sad reflections. Our joy on again beholding them is to be mingled with grief. When we last saw them they had a father, but no mother. Now they have neither one nor the other. The old Colonel, their father — the French *émigré*, the *hunter-naturalist* — is dead. He who had taught them all they knew; who had taught them “to ride, to swim, to dive deep rivers, to fling the lasso, to climb tall trees, and scale steep cliffs, to bring down birds upon the wing or beasts upon the run, with the arrow and the unerring rifle; who had trained them to sleep in the open air, in the dark forest, on the unsheltered prairie, along the white snow-wreath — any where — with but a blanket or a buffalo robe for their bed; who had taught them to live on the simplest food, and had imparted to one of them a knowledge of science, of botany in particular, that enabled them, in case of need, to draw sustenance from plants and trees, from roots and fruits, to find resources where ignorant men would starve; had taught them to kindle a fire with

out flint, steel, or detonating powder ; to discover their direction without a compass, from the rocks and the trees and the signs of the heavens ; and in addition to all, had taught them, as far as was then known, the geography of that vast wilderness that stretches from the Mississippi to the shores of the Pacific Ocean, and northward to the icy borders of the Arctic Sea"—he who had taught them all this, their father, was no more ; and his three sons, the "boy men," of whom he was so proud, and of whose accomplishments he was wont to boast, were now orphans upon the wide world.

But little more than a year after their return from their grand expedition to the Texan prairies, the "old Colonel" had died. It was one of the worst years of that scourge of the South—the yellow fever—and to this dread pestilence he had fallen a victim.

Hugot, the *ex-chasseur* and attached domestic, who was accustomed to follow his master like a shadow, had also followed him into the next world. It was not grief that killed Hugot, though he bore the loss of his kind master sadly enough. But it was not grief that killed Hugot. He was laid low by the same disease of which his master had died—the yellow fever. A week had scarcely passed after the death of the latter, before Hugot caught the disease, and in a few days he was carried to the tomb and laid by the side of his "old Colonel."

'The Boy Hunters—Basil, Lucien, François—became orphans. They knew of but one relation in the whole world with whom their father had kept up any correspondence. This relation was an uncle, and,

strange as it may seem, a Scotchman — a Highlander who had strayed to Corsica in early life, and had there married the Colonel's sister. That uncle had afterwards emigrated to Canada, and had become extensively engaged in the fur trade. He was now a superintendent or "factor" of the Hudson's Bay Company, stationed at one of their most remote posts near the shores of the Arctic Sea! There is a romance in the history of some men wilder than any fiction that could be imagined.

I have not yet answered the question as to where our Boy Hunters were journeying in their birch-bark canoe. By this time you will have divined the answer. Certainly, you will say, they were on their way to join their uncle in his remote home. For no other object could they be travelling through the wild regions of the Red River. That supposition is correct. To visit this Scotch uncle (they had not seen him for years) was the object of their long, toilsome, and perilous journey. After their father's death he had sent for them. He had heard of their exploits upon the prairies, and, being himself of an adventurous disposition, he was filled with admiration for his young kinsmen, and desired very much to have them come and live with him. Being now their guardian, he might command as much, but it needed not any exercise of authority on his part to induce all three of them to obey his summons. They had travelled through the mighty forests of the Mississippi, and upon the summer prairies of the South. These great features of the earth's surface were to them familiar things, and they were no longer curious about them.

But there remained a vast country which they longed eagerly to explore. They longed to look upon its shining lakes and crystal rivers; upon its snow-clad hills and ice-bound streams; upon its huge mammalia — its moose and its musk-oxen, its wapiti and its monster bears. This was the very country to which they were now invited by their kinsman, and cheerfully did they accept his invitation. Already had they made one half the journey, though by far the easier half. They had travelled up the Mississippi by steamboat as far as the mouth of the St. Peter's. There they had commenced their canoe voyage — in other words became "voyageurs" — for such is the name given to those who travel by canoes through these wild territories. Their favorite horses, and the mule "Jeannette," had been left behind. This was a necessity, as these creatures, however useful upon the dry prairies of the South, where there are few or no lakes, and where rivers only occur at long intervals, would be of little service to the traveller in the Northern regions. Here the route is crossed and intercepted by numerous rivers; and lakes of all sizes, with tracts of inundated marsh, succeed one another continually. Such, in fact, are the highways of the country, and the canoe the travelling carriage; so that a journey from one point of the Hudson's Bay territory to another is often a canoe voyage of thousands of miles — equal to a "trip" across the Atlantic!

Following the usual custom, therefore, our Boy Hunters had become voyageurs — "*Young Voyageurs*." They had navigated the St. Peter's in safety,

almost to its head waters. These interlock with the sources of the Red River. By a "portage" of a few miles they had crossed to the latter stream; and, having launched their canoe upon its waters, were now floating downward and northward with its current. But they had yet a long journey before them — nearly two thousand miles! Many a river to be "run," many a rapid to be "shot," many a lake to be crossed, and many a "portage" to be passed, ere they could reach the end of that great *voyage*.

Come, boy reader, shall we accompany them? Yes. The strange scenes and wild adventures through which we must pass, may lighten the toils, and perhaps repay us for the perils, of the journey. Think not of the toils. Roses grow only upon thorns. From toil we learn to enjoy leisure. Regard not the perils. "From the nettle danger we pluck the flower safety." Security often springs from peril. From such hard experiences great men have arisen. Come, then, my young friend! mind neither toil nor peril, but with me to the great wilderness of the North!

Stay! We are to have another "*compagnon du voyage*." There is a fourth in the boat, a fourth "young voyageur." Who is he? In appearance he is as old as Basil, full as tall, and not unlike him in "build." But he is altogether of a different *color*. He is fair-haired; but his hair (unlike that of Lucien, which is also light-colored) is strong, crisp, and curly. It does not droop, but stands out over his cheeks in a profusion of handsome ringlets. His complexion is of that kind known as "fresh," and the weather, to which it has evidently been much exposed, has bronzed

and rather enriched the color. The eyes are dark blue, and, strange to say, with *black* brows and lashes! This is not common, though sometimes observed; and, in the case of the youth we are describing, arose from a difference of complexion on the part of his parents. He looked through the eyes of his mother, while in other respects he was more like his father, who was fair-haired and of a "fresh" color.

The youth himself might be termed handsome. Perhaps he did not possess the youthful beauty of François, nor the bolder kind that characterized the face of Basil. Perhaps he was of a coarser "make" than any of his three companions. His intellect had been less cultivated by education, and *education adds to the beauty of the face*. His life had been a harder one; he had toiled more with his hands, and had seen less of civilized society. Still many would have pronounced him a handsome youth. His features were regular, and of clean outline. His lips expressed good-nature as well as firmness. His eye beamed with native intelligence, and his whole face bespoke a heart of true and determined honesty — *that made it beautiful*.

Perhaps a close scrutinizer of countenances might have detected some resemblance — a family one — between him and his three companions. If such there was, it was very slight; but there might have been, from the relationship that existed between them and him. He was their cousin — their full cousin — the only son of that uncle they were now on their way to visit, and the messenger who had been sent to bring them. Such was the fourth of "the young voyageurs."

His dress was not unlike that worn by Basil ; but as he was seated on the bow, and acting as pilot, and therefore more likely to feel the cold, he wore over his hunting-shirt a Canadian *capote* of white woollen cloth, with its hood hanging down upon his shoulders.

But there was still another “voyageur,” an old acquaintance, whom you, boy reader, will no doubt remember. This was an animal, a quadruped, who lay along the bottom of the canoe upon a buffalo’s hide. “From his size and color — which was a tawny red — you might have mistaken him for a panther — a cougar. His long black muzzle and broad hanging ears gave him quite a different aspect, however, and declared him to be a hound. He *was* one — a blood-hound, with the cross of a mastiff — a powerful animal. It was the dog ‘Marengo.’” You remember Marengo?

In the canoe there were other objects of interest. There were blankets and buffalo robes : there was a small canvas tent folded up ; there were bags of provisions, and some cooking utensils ; there was a spade and an axe ; there were rifles — three of them — and a double-barrelled shot gun ; besides a fish-net, and many other articles, the necessary equipments for such a journey.

Loaded almost to the gunwale was that little canoe, yet lightly did it float down the waters of the **Red River of the North.**

CHAPTER III.

THE TRUMPETER SWAN AND THE BALD EAGLE.

It was the spring season, though late. The snow had entirely disappeared from the hills, and the ice from the water, and the melting of both had swollen the river, and rendered its current more rapid than usual. Our young voyageurs needed not therefore to ply their oars, except now and then to guide the canoe; for these little vessels have no rudder, but are steered by the paddles. The skilful voyageurs can shoot them to any point they please, simply by their dexterous handling of the oars; and Basil, Lucien, and François had had sufficient practice both with "skiffs" and "dug-outs" to make good oarsmen of all three. They had made many a canoe trip upon the lower Mississippi and the bayous of Louisiana; besides their journey up the St. Peter's had rendered them familiar with the management of their birchen craft. An occasional stroke of the paddle kept them in their course, and they floated on without effort. Norman — such was the name of their Canadian or Highland cousin — sat in the bow and directed their course. This is the post of honor in a canoe; and as he had more experience than any of them in this sort of navigation, he was allowed habitually to occupy this post. Lucien sat in the stern. He held in his

hands a book and pencil ; and as the canoe glided onward, he was noting down his memoranda. The trees upon the banks were in leaf — many of them in blossom — and as the little craft verged near the shore, his keen eye followed the configuration of the leaves, to discover any new species that might appear. There is a rich vegetation upon the banks of the Red River ; but the *flora* is far different from that which appears upon the low *alluvion* of Louisiana. It is Northern, but not Arctic. Oaks, elms, and poplars are seen mingling with birches, willows, and aspens. Several species of indigenous fruit trees were observed by Lucien, among which were crab-apple, raspberry, strawberry, and currant. There was also seen the fruit called by the voyageurs “le poire,” but which in English phraseology is known as the “service-berry” (*Amelanchier ovalis*). It grows upon a small bush or shrub of six or eight feet high, with smooth pinnate leaves. These pretty red berries are much esteemed and eaten both by Indians and whites, who preserve them by drying, and cook them in various ways. There was still another bush that fixed the attention of our young botanist, as it appeared all along the banks, and was a *characteristic* of the vegetation of the country. It was not over eight feet in height, with spreading branches of a gray color. Its leaves were three inches wide, and somewhat lobed like those of the oak. Of course, at this early season, the fruit was not ripe upon it ; but Lucien knew the fruit well. When ripe it resembles very much a red cherry, or, still more, a cranberry, having both the appearance and acid taste of the latter. Indeed, it is sometimes used as a sub-

stitute for cranberries in the making of pies and tarts, and in many parts it is called the "bush cranberry." The name, however, by which it is known among the Indians of Red River is "*anepeminan*," from "*nepen*," summer, and "*minan*," berry. This has been corrupted by the fur-traders and voyageurs into "Pembina;" hence the name of a river which runs into the Red, and also the name of the celebrated but unsuccessful settlement of "Pembina," formed by Lord Selkirk many years ago. Both took their names from this berry, that grows in abundance in the neighborhood. The botanical appellation of this curious shrub is *Viburnum oxycoccos*; but there is another species of the viburnum, which is also styled "*oxycoccos*." The common "snowball bush" of our gardens is a plant of the same genus, and very like the "Pembina" both in leaf and flower. In fact, in a wild state, they might be regarded as the same; but it is well known that the flowers of the snowball are sterile, and do not produce the beautiful bright crimson berries of the "Pembina."

Lucien lectured upon these points to his companions as they floated along. Norman listened with astonishment to his philosophic cousin, who, although he had never been in this region before, knew more of its plants and trees than he did himself. Basil also was interested in the explanations given by his brother. On the contrary, François, who cared but little for botanical studies, or studies of any sort, was occupied differently. He sat near the middle of the canoe, double-barrel in hand, eagerly watching for a shot. Many species of water-fowl were upon the

river, for it was now late in the spring, and the wild geese and ducks had all arrived, and were passing northward upon their annual migration. During the day François had got several shots, and had "bagged" three wild geese, all of different kinds, for there are many species of wild geese in America. He had also shot some ducks. But this did not satisfy him. There was a bird upon the river that could not be approached. No matter how the canoe was manœuvred, this shy creature always took flight before François could get within range. For days he had been endeavoring to kill one. Even upon the St. Peter's many of them had been seen, sometimes in pairs, at other times in small flocks of six or seven, but always shy and wary. The very difficulty of getting a shot at them, along with the splendid character of the birds themselves, had rendered François eager to obtain one. The bird itself was no other than the great wild swan — the king of aquatic birds.

"Come, brother!" said François, addressing Lucien, "bother your viburnums and your oxycocks! Tell us something about these swans. See! there goes another of them! What a splendid fellow he is! I'd give something to have him within range of buck-shot."

As François spoke he pointed down-stream to a great white bird that was seen moving out from the bank. It was a swan, and one of the very largest kind — a "trumpeter" (*Cygnus buccinator*).

It had been feeding in a sedge of the wild rice (*Zizania aquatica*), and no doubt the sight of the canoe or the splash of the guiding oar had disturbed

and given it the alarm. It shot out from the reeds with head erect and wings slightly raised, offering to the eyes of the voyageurs a spectacle of graceful and majestic bearing, that, among the feathered race at least, is quite inimitable.

A few strokes of its broad feet propelled it into the open water near the middle of the stream, when, making a half wheel, it turned head down the river, and swam with the current.

At the point where it turned it was not two hundred yards ahead of the canoe. Its apparent boldness in permitting them to come so near without taking wing, led François to hope that they might get still nearer, and, begging his companions to ply the paddles, he seized hold of his double-barrel, and leaned forward in the canoe. Basil also conceived a hope that a shot was to be had, for he took up his rifle, and looked to the cock and cap. The others went steadily and quietly to work at the oars. In a few moments the canoe cleft the current at the rate of a galloping horse, and one would have supposed that the swan must either at once take wing or be overtaken.

Not so, however. The "trumpeter" knew his game better than that. He had full confidence both in his strength and speed upon the water. He was not going to undergo the trouble of a fly, until the necessity arose for so doing; and, as it was, he seemed to be satisfied that that necessity had not yet arrived. The swim cost him much less muscular exertion than flying would have done, and he judged that the current, here very swift, would carry him out of reach of his pursuers

It soon began to appear that he judged rightly, and the voyageurs, to their chagrin, saw that, instead of gaining upon him, as they had expected, every moment widened the distance between him and the canoe. The bird had an advantage over his pursuers. Three distinct powers propelled him, while they had only two to rely upon. He had the current in his favor — so had they. He had oars or paddles — his feet; they had oars as well. He “carried sail,” while they spread not a “rag.” The wind chanced to blow directly down-stream, and the broad wings of the bird, held out from his body, and half extended, caught the very pith of the breeze on their double concave surfaces, and carried him through the water with the velocity of an arrow. Do you think that he was not aware of this advantage when he started in the race? Do you suppose that these birds do not *think*? I for one am satisfied they do, and look upon every one who prates about the *instinct* of these creatures as a philosopher of a very old school indeed. Not only does the great swan think, but so does your parrot, and your piping bullfinch, and the little canary that hops on your thumb. All think, and *reason*, and *judge*. Should it ever be your fortune to witness the performance of those marvellous birds, exhibited by the graceful Mdle. Vandermeersch in the fashionable *salons* of Paris and London, you will agree with me in the belief that the smallest of them has a mind like yourself.

Most certainly the swan, which our voyageurs were pursuing, thought, and reasoned, and judged, and calculated his distance, and resolved to keep on “the even

tenor of his way," without putting himself to extra trouble by beating the air with his wings, and lifting his heavy body, thirty pounds at least, up into the heavens. His judgment proved sound; for, in less than ten minutes from the commencement of the chase, he had gained a clear hundred yards upon his pursuers, and continued to widen the distance. At intervals he raised his beak higher than usual, and uttered his loud booming note, which fell upon the ears of the voyageurs as though it had been sent back in mockery and defiance.

They would have given up the pursuit, had they not noticed that a few hundred yards farther down the river made a sharp turn to the right. The swan, on reaching this, would no longer have the wind in his favor. This inspired them with fresh hopes. They thought they would be able to overtake him after passing the bend, and then, either get a shot at him, or force him into the air. The latter was the more likely; and, although it would be no great gratification to see him fly off, yet they had become so interested in this singular chase that they desired to terminate it by putting the trumpeter to some trouble. They bent, therefore, with fresh energy to their oars, and pulled onward in the pursuit. First the swan, and after him the canoe, swung round the bend, and entered the new "reach" of the river. The voyageurs at once perceived that the bird now swam more slowly. He no longer "carried sail," as the wind was no longer in his favor. His wings lay closely folded to his body, and he moved only by the aid of his webbed feet and the current, which last

happened to be sluggish, as the river at this part spread over a wide expanse of level land. The canoe was evidently catching up, and each stroke was bringing the pursuers nearer to the pursued.

After a few minutes' brisk pulling, the trumpeter had lost so much ground that he was not two hundred yards in the advance, and "dead ahead." His body was no longer carried with the same gracefulness, and the majestic curving of his neck had disappeared. His bill protruded forward, and his thighs began to drag the water in his wake. He was evidently on the threshold of flight. Both François and Basil saw this, as they stood with their guns crossed and ready.

At this moment a shrill cry sounded over the water. It was the scream of some wild creature, ending in a strange laugh, like the laugh of a maniac !

On both sides of the river there was a thick forest of tall trees of the cotton-wood species (*Populus angustifolia*). From this forest the strange cry had proceeded, and from the right bank. Its echoes had hardly ceased, when it was answered by a similar cry from the trees upon the left. So like were the two, that it seemed as if some one of God's wild creatures was mocking another. These cries were hideous enough to frighten any one not used to them. They had not that effect upon our voyageurs, who knew their import. One and all of them were familiar with the voice of the *white-headed eagle* !

The trumpeter knew it as well as any of them, but on him it produced a far different effect. His terror was apparent, and his intention was all at once changed. Instead of rising into the air, as he had

premeditated, he suddenly lowered his head, and disappeared under the water !

Again was heard the wild scream and the maniac laugh ; and the next moment an eagle swept out from the timber, and, after a few strokes of its broad wing, poised itself over the spot where the trumpeter had gone down. The other, its mate, was seen crossing at the same time from the opposite side.

Presently the swan rose to the surface, but his head was hardly out of the water when the eagle once more uttered its wild note, and, half folding its wings, darted down from above. The swan seemed to have expected this, for before the eagle could reach the surface, he had gone under a second time, and the latter, though passing with the velocity of an arrow, plunged his talons in the water to no purpose. With a cry of disappointment the eagle mounted back into the air, and commenced wheeling in circles over the spot. It was now joined by its mate, and both kept round and round, watching for the reappearance of their intended victim.

Again the swan came to the surface, but before either of the eagles could swoop upon him he had for the third time disappeared. The swan is but an indifferent diver ; but under such circumstances he was likely to do his best at it. But what could it avail him ? He must soon rise to the surface to take breath — each time at shorter intervals. He would soon become fatigued and unable to dive with sufficient celerity, and then his cruel enemies would be down upon him with their terrible talons. Such is the usual result, unless the swan takes to the air, which he sometimes

does. In the present case he had built his hopes upon a different means of escape. He contemplated being able to conceal himself in a heavy sedge of bulrushes (*Scirpus lacustris*) that grew along the edge of the river, and towards these he was evidently directing his course under the water. At each emersion he appeared some yards nearer them, until at length he rose within a few feet of their margin, and diving again was seen no more! He had crept in among the sedge, and no doubt was lying with only his head, or part of it, above the water, his body concealed by the broad leaves of the *nymphæ*, while the head itself could not be distinguished among the white flowers that lay thickly along the surface.

The eagles now wheeled over the sedge, flapping the tops of the bulrushes with their broad wings, and screaming with disappointed rage. Keen as were their eyes they could not discover the hiding-place of their victim. No doubt they would have searched for it a long while, but the canoe — which they now appeared to notice for the first time — had floated near, and, becoming aware of their own danger, both mounted into the air again, and with a farewell scream flew off, and alighted at some distance down the river.

“A swan for supper!” shouted François, as he poised his gun for the expected shot.

The canoe was headed for the bulrushes near the point where the trumpeter had been last seen; and a few strokes of the paddles brought the little craft with a whizzing sound among the sedge. But the culms of the rushes were so tall, and grew so closely together, that the canoe-men, after entering, found to

their chagrin they could not see six feet around them. They dared not stand up, for this is exceedingly dangerous in a birch canoe, where the greatest caution is necessary to keep the vessel from careening over. Moreover, the sedge was so thick, that it was with difficulty they could use their oars. They remained stationary for a time, surrounded by a wall of green bulrush. They soon perceived that that would never do, and resolved to push back into the open water. Meanwhile Marengo had been sent into the sedge, and was now heard plunging and sweltering about in search of the game. Marengo was not much of a water-dog by nature, but he had been trained to almost every kind of hunting, and his experience among the swamps of Louisiana had long since relieved him of all dread for the water. His masters, therefore, had no fear but that Marengo would "put up" the trumpeter.

Marengo had been let loose a little too soon. Before the canoe could be cleared of the entangling sedge, the dog was heard to utter one of his loud growls, then followed a heavy plunge, there was a confused fluttering of wings, and the great white bird rose majestically into the air! Before either of the gunners could direct their aim, he was beyond the range of shot, and both prudently reserved their fire. Marengo, having performed his part, swam back to the canoe, and was lifted over the gunwale.

The swan, after clearing the sedge, rose almost vertically into the air. These birds usually fly at a great elevation — sometimes entirely beyond the reach of sight. Unlike the wild geese and ducks, they never

alight upon land, but always upon the bosom of the water. It was evidently the intention of this one to go far from the scene of his late dangers, perhaps to the great lake Winnipeg itself.

After attaining a height of several hundred yards, he flew forward in a horizontal course, and followed the direction of the stream. His flight was now regular, and his trumpet-note could be heard at intervals as, with outstretched neck, he glided along the heavens. He seemed to feel the pleasant sensations that every creature has after an escape from danger, and no doubt he fancied himself secure. But in this fancy he deceived himself. Better for him had he risen a few hundred yards higher, or else had uttered his self-gratulation in a more subdued tone; for it was heard and answered, and that response was the maniac laugh of the white-headed eagle. At the same instant two of these birds — those already introduced — were seen mounting into the air. They did not fly up vertically, as the swan had done, but in spiral curves, wheeling and crossing each other as they ascended. They were making for a point that would intersect the flight of the swan should he keep on in his horizontal course. This, however, he did not do. With an eye as quick as theirs, he saw that he was "headed;" and, stretching his long neck upward, he again pursued an almost vertical line. But he had to carry thirty pounds of flesh and bones, while the largest of the eagles — the female bird — with a still broader spread of wing, was a "light weight" of only seven. The result of this difference was soon apparent. Before the trumpeter had got two hundred yards

higher, the female of the eagles was seen wheeling around him on the same level. The swan was now observed to double, fly downward, and then upward again, while his mournful note echoed back to the earth. But his efforts were in vain. After a series of contortions and manœuvres, the eagle darted forward, with a quick toss threw herself back-downward, and, striking upward, planted her talons in the under part of the wing of her victim. The lacerated shaft fell uselessly down; and the great white bird, no longer capable of flight, came whistling through the air. But it was not allowed to drop directly to the earth; it would have fallen on the bosom of the broad river, and that the eagles did not wish, as it would have given them some trouble to get the heavy carcass ashore. As soon as the male — who was lower in the air — saw that his partner had struck the bird, he discontinued his upward flight, and, poising himself on his spread tail, waited its descent. A single instant was sufficient. The white object passed him still fluttering; but the moment it was below his level he shot after it like an arrow, and, clutching it in his talons, with an outward stroke sent it whizzing in a diagonal direction. The next moment a crashing was heard among the twigs, and a dull sound announced that the swan had fallen upon the earth.

The eagles were now seen sailing downward, and soon disappeared among the tops of the trees.

The canoe soon reached the bank; and François, accompanied by Basil and Marengo, leaped ashore, and went in search of the birds. They found the swan quite dead, and lying upon its back as the eagles

had turned it. Its breast was torn open, and the crimson blood, with which they had been gorging themselves, was spread in broad flakes over its snowy plumage. The eagles themselves, scared by the dog Marengo, had taken flight before the boys could get within shot of them.

As it was just the hour for a "noon halt" and a luncheon, the swan was carried to the bank of the river, where a crackling fire was soon kindled to roast him; and while this operation was going on, the "naturalist" was requested by his companions to give them an account of the "swans of America."

CHAPTER IV.

THE SWANS OF AMERICA.

“VERY well, then,” said Lucien, agreeing to the request. “I shall tell you all I know of the swans; and, indeed, that is not much, as the natural history of these birds in their wild state is but little understood. On account of their shy habits, there is not much opportunity of observing them; and as they annually migrate and breed in those desolate regions within the Arctic circle, where civilized men do not live, but little information has been collected about them. Some of the species, however, breed in the temperate zones, and the habits of these are better known.

“For a long time it was fancied there was but one species of swan. It is now known that there are several, distinguished from each other in form, color, voice, and habits. ‘White as a swan,’ is a simile as old, perhaps, as language itself. This, I fancy, would sound strangely to the ears of a native Australian, who is accustomed to look upon swans as being of the very opposite color, for the black swan is a native of that country.

“According to the naturalist Brehm, who has given much attention to this subject, there are four distinct species of swans in Europe. They are all white.

though some of the species have a reddish orange tinge about the head and neck. Two of them are 'gibbous,' that is, with a knob or protuberance upon the upper part of the bill. One of these Brehm terms the 'white-headed gibbous swan' (*Cygnus gibbus*). The other is the 'yellow-headed' (*C. olor*); and this last also is known as the *mute* or *tame* swan, because it is that species most commonly seen in a tame state upon the ornamental lakes and ponds of England. The other two European species Brehm has designated 'singing swans,' as both of them utter a note that may be heard to a considerable distance.

"The black swan of Australia (*C. niger*) has been naturalized in Europe, and breeds freely in England, where, from its great size and peculiar markings, it is one of the most ornamental of water-fowls. It is, moreover, a great tyrant, and will not permit other birds to approach its haunt, but drives them off, striking them furiously with its strong broad wings.

"Until a late period the swans of America were supposed to be all of one kind. This is not the case. There are now known to be three distinct species inhabiting the fur countries, and migrating annually to the South. That which is best known is the 'whistler,' or 'hooper' (*C. Americanus*), because it is the species that abounds in the old States upon the Atlantic, and was therefore more observed by naturalists. It is believed to be identical with one of the European 'singing' swans (*C. ferus*), but this is not certain, and for my part, I believe they are different, as the eggs of the American swan are greenish, while those of its European congener are brownish, with white blotches.

"The 'hooper' is four and a half feet in length, though there are males still larger, some of them measuring five feet. Its color is white, except upon the head and back part of the neck, where there is a coppery tinge. The bill and feet are black. From the angle of the mouth to the eye there is a small naked 'cere,' of a bright yellow color. These swans, like others of the genus, do not care much for the salt water. They are rarely seen upon the sea, except near its shores, where they may find the aquatic plants upon which they feed. Nor do they go out upon the large lakes. When found upon these, it is generally close in to the land. This is accounted for by the fact that the swans do not 'dive' for their food, but stretch down for it with their long necks, which Nature has peculiarly adapted to this very purpose. Their favorite food consists of the roots of aquatic plants, which are often farinaceous. As these grow best in the shallow small lakes and along the margins of rivers, such places are the usual resort of the swans. Although their diet is a vegetable one, it is not exclusively so, as they will eat frogs, worms, and small fish. Unlike the ducks and geese, they rarely feed upon land, but while floating upon the surface of the water. They walk but awkwardly on land, and are at home only on water or in the air. In the air they are quite at home, and fly so swiftly that it is no easy matter to shoot them, especially when going before the wind. At such times they are supposed to fly at the rate of one hundred miles an hour. When moulting, and unable to rise into the air, it is no easy matter to follow them even with a canoe. By means of their

broad feet and strong wings, they can flutter so quickly over the water, now and then diving, that the hunter cannot overtake them in his boat, but is obliged to use his gun in the pursuit.

“The ‘hoopers’ are migratory, — that is, they pass to the North every spring, and southward again in the autumn. Why they make these annual migrations, remains one of the mysteries of nature. Some believe they migrate to the North, because they there find those desolate uninhabited regions where they can bring forth their young in security. But this explanation cannot be the true one, as there are also uninhabited regions in the south, even under the equator, where they may be equally free from the presence of man. Another explanation might be offered. In hot and tropical countries, most of the small lakes and swamps, where these birds love to dwell, dry up during the summer months: hence the necessity of a migration to colder and moister regions. But this would only hold good of the wading and water birds; it would not account for the migration of the many other birds of passage.

“A better explanation may be this: The north and the cold zones are the natural habitat of most migratory birds. It is there that they bring forth their young, and there they are at home. In tropical regions they are only sojourners for a season, forced thither, some of them, by a cold which they do not relish; but others, such as the water fowl, by the frost, which, binding up the lakes, rivers, and swamps, hinders them from procuring their food. They are thus compelled to make an annual migration to the oper

waters of the South, but as soon as the ice has given way before the genial breath of spring, they all return rejoicing to their favorite home in the North, when their season of love commences.

“The ‘hoopers’ follow this general law, and migrate to the northward every spring. They breed upon islets in the numerous lakes that stud the whole northern part of the American continent. Eminences in swamps are also chosen for breeding places, and the ends of promontories that jut out into the water. The spot selected is always such that the swan, when seated upon her nest, can have a view of the surrounding country, and detect any enemy long before it can approach her. The top of the dome-shaped dwellings of the musk-rat, or musquash (*Fiber zibethicus*), is often selected by the swan for her nest. These curious little houses are usually in the midst of impenetrable swamps: they are only occupied by their builders during the winter; and as they are deserted by them in early spring, they are therefore quite at the service of the swan for the ‘balance of the season. The bird makes a large cavity in the top, and lines it with such reeds and grass as may be found near the spot.

“The hooper lays from six to eight eggs, and sits upon them for a period of six weeks, when the cygnets come forth covered with a thick down of a bluish-gray color. While sitting upon her eggs, the swan is exceedingly watchful and shy. She ‘faces’ towards the point whence she most apprehends danger. When the weather is severe, and the wind cold and keen, she changes into that position which is most comfort

able. If her nest be upon a promontory instead of an island, she usually sits with her head to the land, as she feels secure that no enemy will reach her from the waterside. From the land she has not only man to 'look out' for, but the wolverene (*Gulo luscus*), the lynx (*Felis Canadensis*), foxes, and wolves.

"The Indians often snare the swan upon her nest. Of course the snare — a running noose made from the intestines of the deer — is set in her absence. It is placed upon the side by which she enters, as these birds enter and leave the nest upon opposite sides. The snare must be arranged with great care, and with *clean hands*; and the Indians always take the precaution to wash their hands before setting it, else the swans, whose sense of smell is very acute, will perceive the presence of danger, and will not only keep away for a time, but sometimes desert the eggs altogether. There are many other birds that have a similar habit.

"So much for the 'hooper,'" continued Lucien; "now for the 'trumpeter.' This is the largest of the American swans, being found to measure seventy inches in length. Its specific name 'trumpeter' (*C. buccinator*) is given to it on account of its note, which resembles the sound of a French horn, or trumpet, played at a distance. The bird is white, with black bill and feet, and has also a reddish orange or copper tinge upon the crown and neck; but it wants the yellow spot between the split of the mandibles and the eye. It is easily distinguished from the hooper, both by its louder note and larger body. Its habits, however, are very similar, except that it seems

to be more gregarious, — small flocks of six or eight often appearing together, while the hooper is seen only in pairs, and sometimes solitary. Another distinction is, that the trumpeter arrives much earlier in its migrations to the North, being the earliest bird that appears except the eagles. It breeds as far South as latitude 61°, but most generally within the Arctic circle. Its nest is constructed similarly to those of the hooper, but its eggs are much larger, one of them being a meal for a moderate eater, without bread or any other addition. The trumpeter frequently arrives in the North before the lakes or rivers are thawed. It is then obliged to find sustenance at the rapids and waterfalls, where the Indians can approach under cover, and many are shot at such times by these people. At all other times, as you, François, have observed, it is a bird most difficult of approach; and the Indian hunters only attempt it when they have a long-range gun loaded with ball.

“The third species of American swans is that known as Bewick’s swan (*C. Bewickii*), called after the naturalist of that name. It is the smallest of the three, rarely measuring over fifty-two inches in length, and weighing only fourteen pounds, while the hooper is over twenty pounds in weight, and the trumpeter is often obtained of the enormous weight of thirty!

“Bewick’s swan is also said to be identical with one of Brehm’s singing swans. Its color is almost similar to that of the hooper, and the two are often mistaken for each other. The size and the tail-feathers of all three of the American swans form a sufficiently specific distinction. In the trumpeter

these are twenty-four in number, in the hooper twenty, while the small species has only eighteen.

Of the three, the last-mentioned is the latest on its annual journey, but it breeds farther North than either of the others. Its nest is found upon the islands of the Arctic Sea; it is usually built of peat-moss, and is of gigantic dimensions, being six feet long by five in width, and nearly two feet high. In the top of this pile is the nest itself, forming a large round cavity nearly two feet in diameter. The eggs are of a brownish white, with clouds of darker tint.

"I have remarked," continued Lucien, "a singularity in the geographical distribution of these three species. Upon the Pacific coast the smallest kind and the hooper only are met with, and the small ones outnumber the others in the ratio of five to one. In the interior parts of the continent only the hoopers and trumpeters appear; and the trumpeters are by far the most numerous, while upon the eastern coasts of America the hoopers are the sort best known.

"The swans are eagerly hunted, both by the Indians and white hunters. Their skins, with the quills and down, form a source of profit to the natives of the fur countries, who dispose of them to the Hudson's Bay Company. In some years as many as ten thousand skins have been exported, and sold at the rate of six or seven shillings each. Most of the skins thus sold were those of the trumpeter swans, which are the most numerous.

"Now," said Lucien, in conclusion, "you know as much about the swans as I do; so I shall drop the subject, and recommend to all of you a piece of roast swan, which is now just done to a turn, and which I doubt not will be found less dry than my lecture."



Figure 1. The effect of the concentration of the *Agaricus bisporus* spores on the growth of *Agaricus bisporus* and *Agaricus bisporus* spores. The concentration of the spores was 10⁶ spores/ml (a), 10⁷ spores/ml (b), 10⁸ spores/ml (c), 10⁹ spores/ml (d), 10¹⁰ spores/ml (e), 10¹¹ spores/ml (f), 10¹² spores/ml (g), 10¹³ spores/ml (h), 10¹⁴ spores/ml (i), 10¹⁵ spores/ml (j), 10¹⁶ spores/ml (k), 10¹⁷ spores/ml (l), 10¹⁸ spores/ml (m), 10¹⁹ spores/ml (n), 10²⁰ spores/ml (o), 10²¹ spores/ml (p), 10²² spores/ml (q), 10²³ spores/ml (r), 10²⁴ spores/ml (s), 10²⁵ spores/ml (t), 10²⁶ spores/ml (u), 10²⁷ spores/ml (v), 10²⁸ spores/ml (w), 10²⁹ spores/ml (x), 10³⁰ spores/ml (y), 10³¹ spores/ml (z), 10³² spores/ml (aa), 10³³ spores/ml (ab), 10³⁴ spores/ml (ac), 10³⁵ spores/ml (ad), 10³⁶ spores/ml (ae), 10³⁷ spores/ml (af), 10³⁸ spores/ml (ag), 10³⁹ spores/ml (ah), 10⁴⁰ spores/ml (ai), 10⁴¹ spores/ml (aj), 10⁴² spores/ml (ak), 10⁴³ spores/ml (al), 10⁴⁴ spores/ml (am), 10⁴⁵ spores/ml (an), 10⁴⁶ spores/ml (ao), 10⁴⁷ spores/ml (ap), 10⁴⁸ spores/ml (aq), 10⁴⁹ spores/ml (ar), 10⁵⁰ spores/ml (as), 10⁵¹ spores/ml (at), 10⁵² spores/ml (au), 10⁵³ spores/ml (av), 10⁵⁴ spores/ml (aw), 10⁵⁵ spores/ml (ax), 10⁵⁶ spores/ml (ay), 10⁵⁷ spores/ml (az), 10⁵⁸ spores/ml (ba), 10⁵⁹ spores/ml (bb), 10⁶⁰ spores/ml (bc), 10⁶¹ spores/ml (bd), 10⁶² spores/ml (be), 10⁶³ spores/ml (bf), 10⁶⁴ spores/ml (bg), 10⁶⁵ spores/ml (bh), 10⁶⁶ spores/ml (bi), 10⁶⁷ spores/ml (bj), 10⁶⁸ spores/ml (bk), 10⁶⁹ spores/ml (bl), 10⁷⁰ spores/ml (bm), 10⁷¹ spores/ml (bn), 10⁷² spores/ml (bo), 10⁷³ spores/ml (bp), 10⁷⁴ spores/ml (bq), 10⁷⁵ spores/ml (br), 10⁷⁶ spores/ml (bs), 10⁷⁷ spores/ml (bt), 10⁷⁸ spores/ml (bu), 10⁷⁹ spores/ml (bv), 10⁸⁰ spores/ml (bw), 10⁸¹ spores/ml (bx), 10⁸² spores/ml (by), 10⁸³ spores/ml (bz), 10⁸⁴ spores/ml (ca), 10⁸⁵ spores/ml (cb), 10⁸⁶ spores/ml (cc), 10⁸⁷ spores/ml (cd), 10⁸⁸ spores/ml (ce), 10⁸⁹ spores/ml (cf), 10⁹⁰ spores/ml (cg), 10⁹¹ spores/ml (ch), 10⁹² spores/ml (ci), 10⁹³ spores/ml (cj), 10⁹⁴ spores/ml (ck), 10⁹⁵ spores/ml (cl), 10⁹⁶ spores/ml (cm), 10⁹⁷ spores/ml (cn), 10⁹⁸ spores/ml (co), 10⁹⁹ spores/ml (cp), 10¹⁰⁰ spores/ml (cq), 10¹⁰¹ spores/ml (cr), 10¹⁰² spores/ml (cs), 10¹⁰³ spores/ml (ct), 10¹⁰⁴ spores/ml (cu), 10¹⁰⁵ spores/ml (cv), 10¹⁰⁶ spores/ml (cw), 10¹⁰⁷ spores/ml (cx), 10¹⁰⁸ spores/ml (cy), 10¹⁰⁹ spores/ml (cz), 10¹¹⁰ spores/ml (da), 10¹¹¹ spores/ml (db), 10¹¹² spores/ml (dc), 10¹¹³ spores/ml (dd), 10¹¹⁴ spores/ml (de), 10¹¹⁵ spores/ml (df), 10¹¹⁶ spores/ml (dg), 10¹¹⁷ spores/ml (dh), 10¹¹⁸ spores/ml (di), 10¹¹⁹ spores/ml (dj), 10¹²⁰ spores/ml (dk), 10¹²¹ spores/ml (dl), 10¹²² spores/ml (dm), 10¹²³ spores/ml (dn), 10¹²⁴ spores/ml (do), 10¹²⁵ spores/ml (dp), 10¹²⁶ spores/ml (dq), 10¹²⁷ spores/ml (dr), 10¹²⁸ spores/ml (ds), 10¹²⁹ spores/ml (dt), 10¹³⁰ spores/ml (du), 10¹³¹ spores/ml (dv), 10¹³² spores/ml (dw), 10¹³³ spores/ml (dx), 10¹³⁴ spores/ml (dy), 10¹³⁵ spores/ml (dz), 10¹³⁶ spores/ml (ea), 10¹³⁷ spores/ml (eb), 10¹³⁸ spores/ml (ec), 10¹³⁹ spores/ml (ed), 10¹⁴⁰ spores/ml (ee), 10¹⁴¹ spores/ml (ef), 10¹⁴² spores/ml (eg), 10¹⁴³ spores/ml (eh), 10¹⁴⁴ spores/ml (ei), 10¹⁴⁵ spores/ml (ej), 10¹⁴⁶ spores/ml (ek), 10¹⁴⁷ spores/ml (el), 10¹⁴⁸ spores/ml (em), 10¹⁴⁹ spores/ml (en), 10¹⁵⁰ spores/ml (eo), 10¹⁵¹ spores/ml (ep), 10¹⁵² spores/ml (eq), 10¹⁵³ spores/ml (er), 10¹⁵⁴ spores/ml (es), 10¹⁵⁵ spores/ml (et), 10¹⁵⁶ spores/ml (eu), 10¹⁵⁷ spores/ml (ev), 10¹⁵⁸ spores/ml (ew), 10¹⁵⁹ spores/ml (ex), 10¹⁶⁰ spores/ml (ey), 10¹⁶¹ spores/ml (ez), 10¹⁶² spores/ml (fa), 10¹⁶³ spores/ml (fb), 10¹⁶⁴ spores/ml (fc), 10¹⁶⁵ spores/ml (fd), 10¹⁶⁶ spores/ml (fe), 10¹⁶⁷ spores/ml (ff), 10¹⁶⁸ spores/ml (fg), 10¹⁶⁹ spores/ml (fh), 10¹⁷⁰ spores/ml (fi), 10¹⁷¹ spores/ml (fj), 10¹⁷² spores/ml (fk), 10¹⁷³ spores/ml (fl), 10¹⁷⁴ spores/ml (fm), 10¹⁷⁵ spores/ml (fn), 10¹⁷⁶ spores/ml (fo), 10¹⁷⁷ spores/ml (fp), 10¹⁷⁸ spores/ml (fq), 10¹⁷⁹ spores/ml (fr), 10¹⁸⁰ spores/ml (fs), 10¹⁸¹ spores/ml (ft), 10¹⁸² spores/ml (fu), 10¹⁸³ spores/ml (fv), 10¹⁸⁴ spores/ml (fw), 10¹⁸⁵ spores/ml (fx), 10¹⁸⁶ spores/ml (fy), 10¹⁸⁷ spores/ml (fz), 10¹⁸⁸ spores/ml (ga), 10¹⁸⁹ spores/ml (gb), 10¹⁹⁰ spores/ml (gc), 10¹⁹¹ spores/ml (gd), 10¹⁹² spores/ml (ge), 10¹⁹³ spores/ml (gf), 10¹⁹⁴ spores/ml (gg), 10¹⁹⁵ spores/ml (gh), 10¹⁹⁶ spores/ml (gi), 10¹⁹⁷ spores/ml (gj), 10¹⁹⁸ spores/ml (gk), 10¹⁹⁹ spores/ml (gl), 10²⁰⁰ spores/ml (gm), 10²⁰¹ spores/ml (gn), 10²⁰² spores/ml (go), 10²⁰³ spores/ml (gp), 10²⁰⁴ spores/ml (gq), 10²⁰⁵ spores/ml (gr), 10²⁰⁶ spores/ml (gs), 10²⁰⁷ spores/ml (gt), 10²⁰⁸ spores/ml (gu), 10²⁰⁹ spores/ml (gv), 10²¹⁰ spores/ml (gw), 10²¹¹ spores/ml (gx), 10²¹² spores/ml (gy), 10²¹³ spores/ml (gz), 10²¹⁴ spores/ml (ha), 10²¹⁵ spores/ml (hb), 10²¹⁶ spores/ml (hc), 10²¹⁷ spores/ml (hd), 10²¹⁸ spores/ml (he), 10²¹⁹ spores/ml (hf), 10²²⁰ spores/ml (hg), 10²²¹ spores/ml (hh), 10²²² spores/ml (hi), 10²²³ spores/ml (hj), 10²²⁴ spores/ml (hk), 10²²⁵ spores/ml (hl), 10²²⁶ spores/ml (hm), 10²²⁷ spores/ml (hn), 10²²⁸ spores/ml (ho), 10²²⁹ spores/ml (hp), 10²³⁰ spores/ml (hq), 10²³¹ spores/ml (hr), 10²³² spores/ml (hs), 10²³³ spores/ml (ht), 10²³⁴ spores/ml (hu),

CHAPTER V.

A SWAN-HUNT BY TORCHLIGHT.

A FEW days brought our travellers to the settlement of Red River, where they made but a very short stay; and, having procured a few articles which they stood in need of, they resumed their journey, and floated on towards Lake Winnipeg. The swans were seen in greater numbers than ever. They were not less shy, however, and François, as before, in vain tried to get a shot at one. He was very desirous of bringing down one of these noble birds, partly because the taste he had had of their flesh had given him a liking for it; and partly because their shyness had greatly tantalized him. One is always more eager to kill shy game, both on account of the rarity of the thing, and the credit one gets for his expertness. But the voyageurs had now got within less than twenty miles of Lake Winnipeg, and François had not as yet shot a single swan. It was not at all likely the eagles would help him to another. So there would be no more roast swan for supper.

Norman, seeing how eager François was to shoot one of these birds, resolved to aid him by his advice.

"Cousin Frank," said he, one evening, as they floated along, "you wish very much to get a shot at the swans?"

"I do," replied François, — "I do; and if you can tell me how to accomplish that business, I'll make you a present of this knife." Here François held up a very handsome clasp-knife that he carried in his pouch.

A knife in the fur countries is no insignificant affair. With a knife you may sometimes buy a horse, or a tent, or a whole carcass of beef, or, what is stranger still, a wife! To the hunter in these wild regions — perhaps a thousand miles from where knives are sold — such a thing is of very great value indeed; but the knife which François offered to his cousin was a particularly fine one, and the latter had once expressed a wish to become the owner of it. He was not slow, therefore, in accepting the conditions.

"Well," rejoined he, "you must consent to travel a few miles by night, and I think I can promise you a shot at the trumpeters — perhaps several."

"What say you, brothers?" asked François, appealing to Basil and Lucien; "shall we have the sport? Say yes."

"O, I have no objection," said Lucien.

"Nor I," added Basil. "On the contrary, I should like it above all things. I wish very much to know what plan our cousin shall adopt. I never heard of any mode of approaching these birds."

"Very well, then," answered Norman, "I shall have the pleasure of instructing you in a way that is in use in these parts among the Indians, who hunt the swan for its skin and quills, which they trade to us at the post. We can manage it to-night, I think," continued he, looking up at the sky: there is ne

moon, and the sky is thick. Yes, it will be dark enough."

"Is it necessary the night should be a dark one?" asked François.

"The darker the better," replied Norman. "To-night, if I am not mistaken, will be as black as pitch. But we need to make some preparations. It is near sundown, and we shall have just time to get ready for the business. Let us get ashore, then, as quickly as possible."

"O, certainly — let us land," replied all three at once.

The canoe was now turned to the shore; and when it had arrived within a few feet of the land, it was brought to a stop. Its keel was not allowed to touch the bottom of the river, as that would have injured the little craft. The greatest precaution is always observed both in landing and embarking these vessels. The voyageurs first get out and wade to the shore, one or two remaining to hold the canoe in its place. The cargo, whatever it be, is then taken out and landed; and after that, the canoe itself is lifted out of the water, and carried ashore, where it is set, bottom upward, to dry. The birch-bark canoe is so frail a structure, that were it brought rudely in contact either with the bottom or the bank, it would be very much damaged, or might go to pieces altogether. Hence the care with which it is handled. It is dangerous, also, to stand upright in it, as it is so "crank" that it would easily turn over, and spill both canoe-men and cargo into the water. The voyageurs, therefore, when once they have got in, remain seated during the whole

passage, shifting about as little as they can help. When landed for the night, the canoe is always taken out of the water as described. The bark is of a somewhat spongy nature ; and if left in the water for a length of time, would become soaked and heavy, and would not run so well. When kept all night, bottom upward, it drips and becomes dryer and lighter. In the morning, at the commencement of the day's journey, it sits higher upon the water than in the afternoon and evening, and is at that time more easily paddled along.

Our voyageurs, having got on shore, first kindled a fire to cook their supper. This they intended to despatch earlier than usual, so as to give them the early part of the night for their swan-hunt, which they expected to finish before midnight. Lucien did the cooking, while Norman, assisted by Basil and François, made his preparations for the hunt. François, who was more interested in the result than any of them, watched every movement of his cousin. Nothing escaped him.

Norman proceeded as follows : —

He walked off into the woods, accompanied by François. After going about a hundred yards or so, he stopped at the foot of a certain tree. The tree was a birch — easily distinguished by its smooth, silvery bark. By means of his sharp hunting-knife he “girdled” this tree near the ground, and then higher up, so that the length between the two “girdlings,” or circular cuttings, was about four feet. He then made a longitudinal incision by drawing the point of his knife from one circle to the other. This done, he inserted

the blade under the bark, and peeled it off, as he would have taken the skin from a buffalo. The tree was a foot in diameter, consequently the bark, when stripped off and spread flat, was about three feet in width; for you must remember that the circumference of a circle or cylinder is always about three times the length of its diameter, and therefore a tree is three times as much "*round*" as it is "*through*."

They now returned to the camp-fire, taking along with them the piece of bark that had been cut off. This was spread out, though not quite flat, still leaving it somewhat curved. The convex side, that which had lain towards the tree, was now blackened with pulverized charcoal, which Norman had directed Basil to prepare for the purpose; and to the bark at one end was fastened a stake or shaft. Nothing more remained but to fix this stake in the canoe, in an upright position near the bow, and in such a way that the bottom of the piece of bark would be upon a level with the seats, with its hollow side looking forward. It would thus form a screen, and prevent those in the canoe from being seen by any creature that might be ahead.

When all this had been arranged, Norman shouldered the axe, and again walked off into the woods. This time his object was to obtain a quantity of "knots" of the pitch-pine (*Pinus rigida*), which he knew would most likely be found in such a situation. The tree was soon discovered, and pointed out to François, who accompanied him as before. François saw that it was a tree of about fifty feet in height, and a foot in diameter at its base. Its bark was thick, very dark

in the color, and full of cracks or fissures. Its leaves or "needles," were about three inches long, and grew in threes, each three forming a little bunch, bound together at its base by a brownish sheath. These bunches, in botanical language, are termed "fascicles." The cones were somewhat shorter than the leaves, nearly of the shape of eggs, and clustered together in threes and fours. François noticed that the tree was thickly branched, and therefore there are many knots in the wood. For this reason it is not of much use as timber; but on account of the resin which it contains, it is the best species for firewood; and for that purpose it is used in all parts of the United States, where it grows. Most of the *pine wood* sold for fuel in the large cities of America is the wood of this species.

François supposed that his companion was about to fell one of the trees. He was mistaken, however; Norman had no such intention; he had only stopped before one to examine it, and make sure that it was the species he was in search of. He was soon satisfied of this, and moved on, directing his eyes along the ground. Again he stopped; but this time it was by a tree that had already fallen — blown down, perhaps, by the wind. It was half decayed; but François could see that it was one of the same species — the pitch pine.

This was the very thing Norman wanted, and applying his axe, he soon knocked out a large quantity of the resinous knots. These he at length collected, and putting them into a bag, returned with François to the fire. He then announced that he had no further preparations to make.

All four now sat down to supper, which consisted of dry meat, with biscuits and coffee; and, as their appetites were sharpened by their water journey, they made a hearty meal of it.

As soon as they had finished eating, the canoe was launched and got ready. The screen of birch-bark was set up, by lashing its shaft to the bottom timbers, and also to one of the seats. Immediately in front of this, and out upon the bow, was placed the frying-pan; and this having been secured by being tied at the handle, was filled with dry pine-knots, ready to be kindled at a moment's notice. These arrangements being made, the hunters only awaited the darkness to set forth.

In the progress of their hunt they would be carried still farther down-stream; but as that was the direction in which they were travelling, they would only be progressing on their journey, and thus "killing two birds with one stone." This was altogether a very pleasant consideration; and, having stowed every thing snugly in the canoe, they sat chatting agreeably, and waiting for the arrival of night.

Night came at length, and, as Norman had predicted, it was as "dark as pitch." Stepping gently into the canoe, and seating themselves in their respective places, they pushed out and commenced floating down-stream. Norman sat near the bow, in order to attend to his torch of pine-knots. François was next to him, holding his double-barrel, loaded with buck-shot, which is the same size as that used for swans, and in England is even known as "swan-shot."

Next came Basil with his rifle. He sat near Fran

gois, just by the middle of the little vessel. Lucien who was altogether a man of peace principles, and but little of a shot compared with either of his brothers, handled the oar, — not to propel the canoe, but merely to guide it. In this way the party floated on in silence.

Norman soon kindled his torch, which now cast its red glare over the surface of the river, extending its fiery radii even to the banks on both sides of the stream. The trees that overhung the water seemed tinged with vermilion, and the rippling wave sparkled like liquid gold. The light only extended over a semicircle. From the manner in which the torch was placed, its light did not fall upon the other half of the circle, and this, by contrast, appeared even darker than it would otherwise have done.

The advantage of the plan which Norman had adopted was at once apparent to all. Ahead of the canoe the whole river was plainly seen for a distance of several hundred yards. No object larger than a cork could have floated on its surface, without being visible to those in the vessel — much less the great white body of a trumpeter swan. Astern of the canoe, on the other hand, all was pitchy darkness, and any one looking at the vessel from a position ahead could have seen nothing but the bright torch and the black uniform surface behind it. As I have already stated, the convex side of the bark was *towards* the blaze, and the pan containing the torch being placed close in to the screen, none of the light could possibly fall upon the forms of those within the canoe. They were therefore invisible to any creature from the front, while they themselves could see every thing before them.

Two questions yet remained unanswered. First, — would our hunters find any swans on the river? Second, — if they should, would these birds allow themselves to be approached near enough to be shot at? The first question Norman, of course, could not answer. That was a matter beyond his knowledge or control. The swans might or might not appear, but it was to be hoped they would. It was likely enough. Many had been seen on the preceding day, and why not then? To the second question, the young Canadian gave a definite reply. He assured his cousins that, if met with, the birds would be easily approached in this manner; he had often hunted them so. They would either keep their place, and remain until the light came very near them, or they would move towards it (as he had many times known them to do), attracted by curiosity and the novelty of the spectacle. He had hunted deer in the same manner; he had shot, he said, hundreds of these animals upon the banks of rivers, where they had come down to the water to drink, and stood gazing at the light.

His cousins could well credit his statements. They themselves had hunted deer by torchlight in the woods of Louisiana, where it is termed "fire-hunting." They had killed several in this way. The creatures, as if held by some fascination, would stand with head erect looking at the torch carried by one of the party, while the other took sight between their glancing eyes and fired the deadly bullet. Remembering this, they could easily believe that the swans might act in a similar manner.

It was not long until they were convinced of it by

actual experience. As the canoe rounded a bend in the river, three large white objects appeared in the "reach" before them. A single glance satisfied all that they were swans, though, in the deceptive glare of the torch, they appeared even larger than swans. Their long upright necks, however, convinced the party they could be nothing else, and the canoe was headed directly for them.

As our hunters approached, one of the birds was heard to utter his strange trumpet note, and this he repeated at intervals as they drew nearer.

"I have heard that they sing before death," muttered François to Basil, who sat nearest him. "If so, I hope that's the song itself;" and François laughed quietly at the joke he had perpetrated.

Basil also laughed; and Lucien, who had overheard the remark, could not restrain himself from joining in the laughter.

"I fear not," rejoined Basil; "there is hardly enough music in the note to call it a song. They may live to 'blow their own trumpet' a long while yet."

This remark called forth a fresh chorus of laughter, in which all took part; but it was a very silent kind of laughter, that could not have been heard ten yards off: it might have been termed "laughing in a whisper."

It soon ended, however, as matters now became serious. They were already within less than two hundred yards of the game, and the greatest caution had to be observed. The gunners had arranged the order of fire: Basil was to shoot first, taking steady

aim with his rifle at any one of the birds ; while François should fire as soon as he heard the report of his brother's gun, taking the remaining swans upon the wing, with one or both barrels, as he best might.

At length Basil deemed himself near enough, and, levelling his piece, fired. The bird threw out its wings, and flattened down upon the water, almost without a struggle. The other two were rising into the air, when "crack! crack!" went the two barrels of François' piece, and one of the swans fell back with a broken wing, and fluttered over the surface of the stream. Basil's had been shot dead, and was taken up easily ; but the wounded bird was only captured after a long chase with the canoe ; and when overtaken, it struck so fiercely with its remaining wing, that one of the blows inflicted a painful wound on the wrist of François. Both, however, were at length got safely aboard, and proved to be a male and female of the largest dimensions.

CHAPTER VI.

"CAST AWAY."

OF course, the reports of the guns must have frightened any other swans that were near. It was not likely they would find any more before going some distance farther down the river; so, having stowed away in a safe place the two already killed, the hunters paddled rapidly onward.

They had hardly gone half a mile farther, when another flock of swans was discovered. These were approached in a similar way, and no less than three were obtained — François making a remarkable shot, and killing with both barrels. A little farther down, one of the "hoopers" was killed; and still farther on, another trumpeter, making in all no less than seven swans that lay dead in the bottom of the canoe!

These seven great birds almost filled the little craft to the gunwales, and you would think that our "torch-hunters" ought to have been content with such a spoil; but the hunter is hard to satisfy with game, and but too often inclined to "spill much more blood" than is necessary to his wants. Our voyageurs, instead of desisting, again set the canoe in motion, and continued the hunt.

A short distance below the place where they had shot the last swan, as they were rounding a bend in

the river, a loud rushing sounded in their ears, similar to that produced by a cascade or waterfall. On first hearing it, they were startled and somewhat alarmed. It might be a "fall," thought they. Norman could not tell: he had never travelled this route; he did not know whether there were falls in the Red River or not, but he believed not. In his voyage to the South, he had travelled by another route; that was, up the Winnipeg River, and through Rainy Lake and the Lake of the Woods to Lake Superior. This is the usual and well-known track followed by the *employés* of the Hudson's Bay Company; and Norman had travelled it.

In this uncertainty the canoe was brought to a stop, and our voyageurs remained listening. The noise made by the water was not very distant, and sounded like the roaring of "rapids," or the rush of a "fall." It was evidently one or the other; but, after listening to it for a considerable time, all came to the conclusion that the sound did not proceed from the Red River itself, but from some stream that emptied into it upon the right. With this belief they again put the canoe in motion, and glided slowly and cautiously onward.

Their conjecture proved to be correct. As they approached nearer, they perceived that the noise appeared every moment more and more to their right; and presently they saw, below them, a rapid current sweeping into the Red River from the right bank. This was easily distinguished by the white froth and bubbles that were carried along upon its surface, and which had evidently been produced by some fall over

which the water had lately passed. The hunters now rowed fearlessly forward, and in a few moments came opposite the *debouchure* of the tributary stream, when a considerable cascade appeared to their view, not thirty yards from the Red River itself. The water foamed and dashed over a series of steps, and then swept rapidly on, in a frothy current. They had entered this current, and were now carried along with increased velocity, so that the oarsmen suspended operations, and drew their paddles within the canoe.

A flock of swans now drew their attention. It was the largest flock they had yet seen, numbering nearly a score of these noble birds, — a sight, as Norman informed them, that was exceedingly rare even in the most favored haunts of the swan. Rarely are more than six or seven seen together, and oftener only two or three. A grand *coup* was determined upon. Norman took up his own gun, and even Lucien, who managed the stern oar, and guided the craft, also brought his piece — a very small rifle — close to his hand, so that he might have a shot as well as the others.

The canoe was directed in such a manner that, by merely keeping its head down the stream, it would float to the spot where the swans were.

In a short while they approached very near the great birds, and our hunters could see them sitting on the water, with upraised necks, gazing in wonder at the torch. Whether they sounded their strange note was not known, for the "sough" of the waterfall still echoed in the ears of the canoe-men, and they could not hear aught else.

Basil and Norman fired first, and simultaneously

but the louder detonations of François' double-barrel, and even the tiny crack of Lucien's rifle, were heard almost the instant after. Three of the birds were killed by the volley, while a fourth, evidently "winged," was seen to dive, and flutter down-stream. The others mounted into the air, and disappeared in the darkness.

During the time occupied in this manœuvre, the canoe, no longer guided by Lucien's oar, had been caught by some eddy in the current, and swept round stern-foremost. In this position the light no longer shone upon the river ahead, but was thrown up-stream. All in a downward direction was buried in deep darkness. Before the voyageurs could bring the canoe back to its proper direction, a new sound fell upon their ears that caused some of them to utter a cry of terror. It was the noise of rushing water, but not that which they had already heard and passed. It was before them in the river itself. Perhaps it was a cataract, and *they were sweeping rapidly to its brink!*

The voice of Norman was heard exclaiming, "Hold with your oars! — the rapids! — the rapids!" At the same time he himself was seen rising up and stretching forward for an oar. All was now consternation; and the movements of the party naturally consequent upon such a sudden panic shook the little craft until her gunwales lipped the water. At the same time she had swung round, until the light again showed the stream ahead, and a horrid sight it was. Far as the eye could see was a reach of foaming rapids. Dark points of rocks, and huge black boulders, thickly

scattered in the channel, jutting above the surface ; and around and against these, the water frothed and hissed furiously. There was no cataract, it is true — there is none such in Red River — but for all purposes of destruction the rapids before them were equally dangerous and terrible to the eyes of our voyageurs. They no longer thought of the swans. The dead were permitted to float down unheeded, the wounded to make its escape. Their only thought was to stop the canoe before it should be carried upon the rapids.

With this intent all had taken to the oars, but in spite of every exertion they soon found that the light craft had got within the influence of the strong current, and was sucked downward more rapidly than ever. Their backward strokes were to no purpose.

In a few seconds the canoe had passed over the first stage of the rapids, and shot down with the velocity of an arrow. A huge boulder lay directly in the middle of the channel, and against this the current broke with fury, laving its sides in foaming masses. The canoe was hurried to this point ; and as the light was again turned up-stream, none of the voyageurs could see this dangerous rock. But they could not have shunned it then. The boat had escaped from their control, and spun round at will. The rock once more came under the light, but just as the canoe, with a heavy crash, was driven against it.

For some moments the vessel, pressed by the current against the rock, remained motionless ; but her sides were stove in, and the water was rushing through. The quick eye of Basil — cool in all crises of extreme danger — perceived this at a glance. He saw that

the canoe was a wreck, and nothing remained but to save themselves as they best might. Dropping the oar, and seizing his rifle, he called to his companions to leap to the rock; and all together immediately sprang over the gunwale. The dog Marengo followed after.

The canoe, thus lightened, heeled round into the current, and swept on. The next moment she struck another rock, and was carried over on her beams. The water then rushed in — the white bodies of the swans, with the robes, blankets, and implements, rose on the wave; the blazing knots were spilled from the pan, and fell with a hissing sound; and a few seconds after they were extinguished, and all was darkness!

CHAPTER VII.

A BRIDGE OF BUCKSKIN.

THE canoe was lost, and all it had contained, or nearly all. The voyageurs had saved only their guns, knives, and the powder-horns and pouches, that had been attached to their persons. One other thing had been saved — an axe which Basil had flung upon the rock as he stepped out of the sinking vessel. All the rest — robes, blankets, swans, cooking utensils, bags of provisions, such as coffee, flour, and dried meat — were lost — irrecoverably lost. These had either drifted off upon the surface, or been carried under water and hidden among the loose stones at the bottom. No matter where, they were lost; and our voyageurs now stood on a small naked rock in the middle of the stream, with nothing left but the clothes upon their backs, and the arms in their hands. Such was their condition.

There was something so sudden and awful in the mishap that had befallen them, that for some minutes they stood upon the spot where they had settled without moving or addressing a word to one another. They gazed after the canoe. They knew that it was wrecked, although they could see nothing either of it or its contents. Thick darkness enveloped them, rendered more intense from the sudden extinction of the

orchlight. They saw nothing but the foam flickering along the river, like the ghosts of the swans they had killed, and they heard only the roaring of the water, that sounded in their ears with a hoarse and melancholy wail.

For a long time they stood impressed with the lamentable condition into which the accident had plunged them; and a lamentable condition it was, sure enough. They were on a small rock in the midst of a rapid river. They were in the midst of a great wilderness too, many long miles from a settlement. The nearest could only be reached by travelling through pathless forests, and over numerous and deep rivers. Impassable swamps, and lakes with marshy shores, lay on the route, and barred the direct course, and all this journey would have to be made on foot.

But none of our young voyageurs were of that stamp to yield themselves to despair. One and all of them had experienced perils before — greater even than that in which they now stood. As soon, therefore, as they became fully satisfied that their little vessel was wrecked, and all its contents scattered, instead of despairing, their first thoughts were how to make the best of their situation.

For that night, at least, they were helpless. They could not leave the rock. It was surrounded by rapids. Sharp, jagged points peeped out of the water, and between these the current rushed with impetuosity. In the darkness no human being could have crossed to either shore in safety. To attempt it would have been madness, and our voyageurs soon came to this conclusion. They had no other choice than to remain

where they were until the morning; so, seating themselves upon the rock, they prepared to pass the night.

They sat huddled close together. They could not lie down — there was not room enough for that. They kept awake most of the night, one or other of them, overcome by fatigue, occasionally nodding over in a sort of half-sleep, but awaking again after a few minutes' uncomfortable dreaming. They talked but little, as the noise of the rushing rapids rendered conversation painful. To be heard, they were under the necessity of shouting to one another, like passengers in an omnibus. It was cold, too. None of them had been much wetted in escaping from the canoe; but they had saved neither overcoat, blanket, nor buffalo-robe; and, although it was now late in the spring, the nights near Lake Winnipeg, even at that season, are chilly. They were above the latitude of 50° ; and although in England, which is on that parallel, it is not very cold of a spring night, it must be remembered that the line of equal temperature — in the language of meteorologists the "*isothermal line*" — is of a much lower latitude in America than in Europe.

Another fact worth remembering is, that upon the eastern or Atlantic coast of the American Continent it is much colder in the same latitude than on the western or Pacific side. The Pacific "sea-board" in its climate is more like the western edge of the old continent. This would seem to indicate that the climate of a coast country is much influenced by the side upon which the ocean lies, whether east or west. This in reality is the case, for you may observe on your map that the western coasts of both the "old

world" and the "new" are somewhat similarly placed in regard to their oceans, and hence the similarity of their climates.

There are many other causes connected with this, such as the direction of winds, and the different effects produced by them on the atmosphere when they have passed over water or over land. It was, and is still by many people believed, that the winds are produced by the air becoming heated in a particular place, and then ascending, and leaving a "vacuum" into which the colder air rushes from all sides around. This "rushing," it was supposed, made the wind. To some extent this theory is true, but there are several other causes that operate in producing wind. Electricity—an agent hitherto but little known, but one of the most important elements of our earth—has much to do with the winds; and the revolution of the earth on its own axis has also an influence upon them. Indeed it is to be wondered at, that mankind should have so long remained satisfied with the very unsatisfactory theory of the *heated air*. But it is not to be wondered at either, when we consider how little mankind has had to do with these things—when we consider that as yet nearly every country upon the face of the globe is despotic; that the whole time of the great body of the people is occupied in a struggle for life—occupied in toiling for a few, who by the most cunning devices rob them of the fruits of their toils—rob them so skilfully that the poor blinded masses have grown to consider eternal toil as the *natural state of man*—nay more, are ready to persecute him who would elevate them, and worship him

who would sink them deeper in baseness and loneliness;— when we reflect on this almost hopeless darkness of soul that has marked the history of the past, and is too much the character of the present, we need not wonder that so few have had either leisure or inclination to yield themselves to the acquirement or prosecution of scientific knowledge. “The winds have blown where they listed, and we have heard the sound thereof,” but men absorbed in the hard struggle of life have found but little time to inquire “whence they come or whither they go.”

The people of the United States are yet but partially free. They still inherit, from customs and prejudices, the fruits of an ancestral oppression, and a bondage of centuries of duration. But even their *partial* freedom has already shown its good effects. At this moment knowledge is progressing faster among these people than any other on the face of the earth. Meteorology begins to assume the palpable shape of an exact science. The winds are being traced in their currents, and followed through all their windings, by Maury and other men of talent; and if you live twenty years longer (and I hope you may live three times as many years), you will, no doubt, be able to tell “whence the wind cometh and whither it goeth.”

Well, we began this politico-scientific discussion by observing that it is very cold in the latitude of Lake Winnipeg, even in late spring. Only at night though the days are sometimes so hot there that you might fancy yourself in the tropics. These extremes are characteristic of the climate of all American coun

tries, and particularly those that lie at a distance from the sea-coast.

Our voyageurs were chilled to the very bones, and of course glad to see the daylight glimmering through the tops of the trees that grew upon the banks of the river. As soon as day broke, they began to consider how they would reach those trees. Although swimming a river of that width would have been to any of the four a mere bagatelle, they saw that it was not to be so easy an affair. Had they been upon either bank, they could have crossed to the other without difficulty — as they would have chosen a place where the water was comparatively still. On the rock they had no choice, as the rapids extended on both sides above and below it. Between the boulders the current rushed so impetuously, that had they attempted to swim to either bank, they would have been carried downward, and perhaps dashed with violence against one or other of the sharp stones.

As soon as it was light, they saw all this; not without feelings of apprehension and uneasiness. Their whole attention was now occupied with the one object — how they should get to the bank of the river.

The right bank was the more distant; but the passage in that direction appeared the easier one. The current was not so swift, nor yet did it seem so deep. They thought they might ford it, and Basil made the attempt; but he soon got beyond his depth, and was obliged, after being carried off his feet, to swim up under the lee of the rock again.

From the rock to the right bank was about a

hundred yards' distance. Here and there, at irregular intervals, sharp, jagged stones rose above the surface, some of them projecting three feet or more out of the water, and looking very much like upright tombstones. Lucien had noticed these, and expressed the opinion that if they only had a rope, they might fling it over one of these stones, and then, holding it fast at the other end, might pass by that means from one to the other.

The suggestion was a good one, but where was the rope to come from? All their ropes and cords — lassoes and all — had been swept away in the wreck. Not a string remained, except those that fastened their horns, flasks, and other accoutrements; and these were only small thongs, and would be of no use for such a purpose. It would require a rope strong enough to carry the weight of a man impelled by a rapid current — in fact, a weight equal to that of several men. They all set to thinking how this was to be obtained. Each looked at the other, and scanned the straps and thongs that were around their bodies. They were satisfied at a glance that these would not be sufficient to make such a rope as was wanted. They did not give up the hope of being able to obtain one. They were all of them accustomed to resort to strange expedients, and a sufficiently strange one now suggested itself. Basil and Norman seemed to have thought of it at the same time, for both at once unbuckled their straps, and commenced pulling off their buckskin hunting-shirts. The others said nothing, as they knew well what they were going to do with them — they knew they intended cutting them into strips, and then twisting a rope out of them.

All four set to work together. Lucien and François held the shirts taut, while Basil and Norman handled the knives, and in a few minutes the rock was covered with strips of buckskin about two inches wide, by a yard or so in length. These were next joined and plaited together in such a manner that a rope was formed nearly forty feet long. An eye was made at one end, and through this the other end was reeved — so that a running noose was obtained, in the same manner as the Mexicans and Indians make their lassoes. The rope was now ready for use, and Basil was the very hand to use it; for Basil knew how to fling a lasso as well as either Mexican or Indian. He had practised it often, and had lassoed many a long-horned bull upon the prairies of Opelousas and the Attakapas. To Basil, therefore, the rope was given.

He placed himself on the highest part of the rock, having first coiled the new-made lasso, and hung the coil lightly over his left arm. He then took the noose-end in his right hand, and commenced winding it around his head. His companions had laid themselves flat, so as not to be in the way of the noose as it circled about. After a few turns the rope was launched forth, and a loud "hurrah!" from François announced that the throw was successful. It was so, in fact, as the noose was seen settling smoothly over the jutting stone, taking full hold upon it. A pull from Basil fixed it; and in a few minutes it was made quite fast, without the slightest danger of its slipping off. The other end was then carried round a projecting point of the rock on which they stood, and knotted

firmly, so that the rope was quite taut, and stretched in a nearly horizontal direction, about a foot above the surface of the water.

The voyageurs now prepared to cross over. Their guns, pouches, and flasks were carefully secured, so that the water could not damage them. Then each took a piece of the buckskin thong, and fastened it round his waist, leaving enough to form a running loop. This loop was intended to embrace the rope, and run along it, as they drew themselves forward by their hands.

Basil passed over first. He was the oldest, and, as he asserted, it was but right he should run the risk in testing the new-fashioned bridge, of which he was the architect. It worked admirably, and sustained the weight of his body, with the whole force of the current acting upon it. Of course he was swept far down, and the rope was stretched to its full tension, but he succeeded in handing himself along, until he was able to touch the second rock, and clamber upon it in safety. During the passage across he was watched by his companions with emotions of no ordinary character, but as soon as he had reached the opposite end of the rope all three uttered a loud and simultaneous cheer. Lucien passed over next, and after him François. Notwithstanding his danger, François laughed loudly all the time he was in the water, while his brothers were not without some fears for his safety. Marengo was next attached to the rope, and pulled safely over.

Norman was the last to cross upon the buckskin bridge, but, like the others, he landed in safety ; and

the four, with the dog, now stood upon the little isolated boulder, where there was just room enough to give them all a footing.

A difficulty now presented itself, which they had not hitherto thought of. Another reach of rapid current was to be crossed, before they could safely trust themselves to enter the water. This they knew before, but they had also noticed that there was another jutting rock, upon which they might fling their rope. But the rope itself was now the difficulty. It was fast at both ends, and how were they to release it from the rock they had left? One of them could easily cross over again and untie it, but how was he to get back to the others? Here was a dilemma which had not presented itself before, and they now saw themselves no better off than ever. The rapid that remained to be crossed, was as dangerous as the one they had succeeded in passing. There was no hope that they could swim it in safety. They would certainly be swept with violence against the rocks below. There was no chance, then, of their going an inch farther — unless by some means similar to that they had just used, and the rope was no longer at their service.

For some time they all stood silent, each considering the matter in his own way. How could they free the rope?

"It cannot be done," said one.

"Impossible," rejoined another. "We must make a second rope. François' shirt still remains, and our leggings — we can use them."

This was the mode suggested by François and Norman, and Lucien seemed to assent to it. They had

already commenced untying their leggings, when Basil uttered the ejaculation —

“Stop!”

“Well, what is it, brother?” asked Lucien.

“I think I can free the rope at the other end. At all events, let me try. It will not cost much, either in time or trouble.”

“How do you mean to do it, brother?”

“Sit close, all of you. Give me room — you shall see presently.”

As directed by Basil, they all cowered closely down, so as to occupy as little space as possible. Basil, having uncovered the lock of his rifle — which had been carefully bound up in a piece of deer’s bladder — placed himself in a firm position, and appeared as if about to fire. Such was his intention — for in a few moments he was seen to raise the gun to his shoulder, and take aim. None of his companions uttered a word. They had already guessed the object of this movement, and sat silently awaiting the result.

On the rock which they had left, the rope still bound fast passed around one of the angles, in such a way that, from the point where Basil stood, it offered a fair mark. It was at this Basil was aiming. His object was to cut the thong with his bullet. He could not do it with a single shot, as the thong was broader than the bullet, but he had calculated that he might effect his purpose with several. If he did not succeed in cutting it clean through, the ball flattening upon the rock would, perhaps, tear the rope in such a manner that, by pulling by the other end, they might detach it. Such were the calculations and hopes of Basil.

A moment more and the crack of his rifle was heard. At the same instant the dust rose up from the point at which he had aimed, and several small fragments flew off into the water. Again was heard François' "hurrah," for François, as well as the others, had seen that the rope had been hit at the right place, and now exhibited a mangled appearance.

While Basil was reloading, Norman took aim and fired. Norman was a good shot, though perhaps not so good a one as Basil, for that was no easy matter as there were few such marksmen to be found anywhere, not even among the professional trappers and hunters themselves. But Norman was a fair shot, and this time hit his mark. The thong was evidently better than half divided by the two bullets. Seeing this, François took hold of the other end, and gave it a strong jerk or two, but it was still too much for him, and he ceased pulling, and waited the effect of Basil's second shot.

The latter had now reloaded, and, taking deliberate aim again, fired. The rope was still held taut upon the rock, for part of it dragged in the current, the force of which kept pressing it hard downward. Scarcely was the report heard, when the farther end of the thong flew from its fastening, and, swept by the running water, was seen falling into the lee of the boulder on which the party now stood. A third time was heard the voice of François uttering one of his customary "hurrahs." The rope was now dragged up, and made ready for further use. Basil again took hold of it; and, after coiling it as before, succeeded in throwing the noose over the third rock, where it

settled and held fast. The other end was tied as before, and all passed safely to the new station. Here, however, their labor ended. They found that from this point to the shore the river was shallow, and fordable; and, leaving the rope where it was, all four took the water, and waded safely to the bank.

CHAPTER VIII.

DECOYING THE "GOATS"

FOR the present, then, our voyageurs had escaped. They were safe upon the river's bank ; but when we consider the circumstances in which they were placed, we shall perceive that they were far from being pleasant ones. They were in the midst of a wilderness, without either horse or boat to carry them out of it. They had lost every thing but their arms and their axe. The hunting-shirts of some of them, as we have seen, were destroyed, and they would now suffer from the severe cold that even in summer, as we have said, often reigns in these latitudes. Not a vessel was left them for cooking with, and not a morsel of meat or any thing was left to be cooked. For their future subsistence they would have to depend upon their guns, which, with their ammunition, they had fortunately preserved.

After reaching the shore, their first thoughts were about procuring something to eat. They had now been a long time without food, and all four were hungry enough. As if by one impulse, all cast their eyes around, and looked upward among the branches of the trees, to see if any animal could be discovered that might serve them for a meal. Bird or quadruped, it mattered not, so that it was large enough to

give the four a breakfast. But neither one nor the other was to be seen, although the woods around had a promising appearance. The trees were large, and as there was much underwood, consisting of berry bushes and plants with edible roots, our voyageurs did not doubt that there would be found game in abundance. It was agreed, then, that Lucien and François should remain on the spot and kindle a fire, while Basil and Norman went off in search of something to be cooked upon it.

In less than an hour the latter returned, carrying an animal upon his shoulders, which both the boys recognized as an old acquaintance,—the prong-horned antelope (*Antilope furcifer*), so called from the single fork or prong upon its horns. Norman called it "a goat," and stated that this was its name among the fur-traders, while the Canadian voyageurs give it the title of "cabree." Lucien, however, knew the animal well. He knew it was not of the goat kind, but a true antelope, and the only animal of that genus found in North America. Its habitat is the prairie country, and at the present time it is not found farther east than the prairies extend, nor farther north either, as it is not a creature that can bear extreme cold. In early times, however—that is, nearly two centuries ago—it must have ranged nearly to the Atlantic shores, as Father Hennepin, in his Travels, speaks of "goats" being killed in the neighborhood of Niagara, meaning no other than the prong-horned antelopes. The true wild goat of America is a very different animal, and is only found in the remote regions of the Rocky Mountains.

What Norman had shot, then, was an antelope; and the reason why it is called "cabree" by the voyageurs, and "goat" by the fur-traders, is partly from its color resembling that of the common goat, but more from the fact, that along the upper part of its neck there is a standing mane, which does in truth give it somewhat the appearance of the European goat. Another point of resemblance lies in the fact, that the "prong-horns" emit the same disagreeable odor, which is a well-known characteristic of the goat species. This proceeds from two small glandular openings that lie at the angles of the jaws, and appear spots of a blackish brown color.

Both Lucien and François had shot antelopes. They had decoyed them within range in their former expedition on the prairies, and had seen wolves do the same. The Indians usually hunt them in this manner, by holding up some bright-colored flag, or other curious object, which rarely fails to bring them within shot; but Norman informed his cousins that the Indians of the Hudson's Bay Company care little about the antelope, and rarely think it worth hunting. Its skin is of little value to them, and they consider its flesh but indifferent eating. But the chief reason why they take so little notice of it is, because it is found in the same range with the buffalo, the moose, and the elk; and, as all these animals are more valuable to the Indian hunter, he allows the antelope to go unmolested, unless when he is hard pressed with hunger, and none of the others are to be had.

While skinning the antelope for breakfast, Norman amused his companions by relating how he had killed

it. He said that he had got near enough to shoot it by practising a "dodge." After travelling through the woods for some half-mile or so, he had come out into a country of "openings," and saw that there was a large prairie beyond. He saw that the woods extended no farther than about a mile from the banks of the river, and that the whole country beyond was without timber, except in scattered clumps. This is, in fact, true of the Red River country, particularly of its western part, from which the great prairies stretch westward, even to the "foot-hills" (*piedmont*) of the Rocky Mountains. Well, then, after arriving at the openings, Norman espied a small herd of antelopes, about ten or a dozen in all. He would rather they had been something else, as elk or deer; for, like the Indians, he did not much relish the "goat's" meat. He was too hungry, however, to be nice, and so he set about trying to get within shot of the herd. There was no cover, and he knew he could not approach near enough without using some stratagem. He therefore laid himself flat upon his back, and raised his heels as high as he could into the air. These he kicked about in such a manner as soon to attract the attention of the antelopes, that, curious to make out what it was, commenced running round and round in circles, of which Norman himself was the centre. The circles gradually became smaller and smaller until the hunter saw that his game was within range when, slyly rolling himself round on one shoulder, he took aim at a buck, and fired. The buck fell, and the rest of the herd bounded off like the wind. Norman feeling hungry himself, and knowing that his compan

icns were suffering from the same cause, lost no time in looking for other game; but shouldering the "goat," carried it into camp.

By this time Lucien and François had a fire kindled — a roaring fire of "pine-knots" — and both were standing by it, smoking all over in their wet leggings. They had got nearly dry when Norman returned, and they proceeded to assist in butchering the antelope. The skin was whipped off in a trice; and the venison, cut into steaks and ribs, was soon spitted and sputtering cheerily in the blaze of the pine-knots. Every thing looked pleasant and promising, and it only wanted the presence of Basil to make them all feel quite happy again. Basil, however, did not make his appearance; and as they were all as hungry as wolves, they could not wait for him, but set upon the antelope-venison, and made each of them a hearty meal from it.

As yet they had no apprehensions about Basil. They supposed he had not met with any game, and was still travelling about in search of it. Should he succeed in killing any, he would bring it in; and should he not, he would return in proper time without it. It was still early in the day.

But several hours passed over, and he did not come. It was an unusual length of time for him to be absent, especially in strange woods of which he knew nothing; moreover, he was in his shirt sleeves, and the rest of his clothing had been dripping wet when he set out. Under these circumstances would he remain so long, unless something unpleasant had happened to him?

This question the three began to ask one another. They began to grow uneasy about their absent companion; and as the hours passed on without his appearing, their uneasiness increased to serious alarm. They at length resolved to go in search of him. They took different directions, so that there would be a better chance of finding him. Norman struck out into the woods, while Lucien and François, followed by the dog Marengo, kept down the bank -- thinking that if Basil had got lost, he would make for the river to guide him, as night approached. All were to return to the camp at nightfall, whether successful or not.

After several hours spent in traversing the woods and openings, Norman came back. He had been unable to find any traces of their missing companion. The others had got back before him. They heard his story with sorrowing hearts, for neither had they fallen in with the track of living creature. Basil was lost, beyond a doubt. He would never have staid so long, had not some accident happened to him. Perhaps he was dead -- killed by some wild animal -- a panther or a bear. Perhaps he had met with Indians, who had carried him off, or put him to death on the spot. Such were the painful conjectures of his companions.

It was now night. All three sat mournfully over the fire, their looks and gestures betokening the deep dejection they felt. Although in need of repose, none of them attempted to go to sleep. At intervals they discussed the probability of his return, and then they would remain silent. Nothing could be done that night. They could only await the morning light.

when they would renew their search, and scour the country in every direction.

It was near midnight, and they were sitting silently around the fire, when Marengo started to his feet, and uttered three or four loud barks. The echoes of these had hardly died among the trees when a shrill whistle was heard at some distance off in the woods.

"Hurrah!" shouted François, leaping to his feet at the instant; "that's Basil's whistle, I'll be bound. I'd know it a mile off. Hurrah!"

François' "hurrah" rang through the woods, and the next moment came back a loud "Hilloa!" which all recognized as the voice of Basil.

"Hilloa!" shouted the three by the fire.

"Hilloa, my boys! all right!" replied the voice; and a few seconds after, the tall upright form of Basil himself was seen advancing, under the glare of the pine-knots. A shout of congratulation was again raised; and all the party, preceded by Marengo, rushed out to meet the new-comer. They soon returned, bringing Basil up to the fire, when it was seen that he had not returned empty-handed. In one hand he carried a bag of grouse, or "prairie hens," while from the muzzle of his shouldered rifle there hung something that was at once recognized as a brace of buffalo tongues.

"*Voilà!*" cried Basil, flinging down the bag, "how are you off for supper? And here," continued he, pointing to the tongues, "here's a pair of titbits that'll make you lick your lips. Come! let us lose no time in the cooking, for I'm hungry enough to eat either of them raw."

Basil's request was instantly complied with. The fire was raked up, spits were speedily procured, a tongue and one of the grouse were roasted; and although Lucien, François, and Norman had already supped on the "goat's meat," they set to upon the new viands with fresh appetites. Basil was hungrier than any, for he had been all the while fasting. It was not because he was without meat, but because he knew that his comrades would be uneasy about him, and he would not stop to cook it. Of meat he had enough, since he had slain the two buffaloes to which the tongues had belonged; and these same buffaloes, he now informed them, had been the cause of his long absence.

Of course, all were eager to know how the buffaloes could have delayed him; and therefore, while they were discussing their savory supper, Basil narrated the details of his day's adventure.

CHAPTER IX.

A "PARTRIDGE DANCE."

"**AFTER** leaving here," said Basil, "I struck off through the woods in a line that led from the river, in a diagonal direction. I hadn't walked more than three hundred yards, when I heard a drumming sound, which I at first took to be thunder; but, after listening a while, I knew it was not that, but the drumming of the ruffed grouse. As soon as I could ascertain the direction of the sound, I hurried on in that way; but for a long time I appeared to get no nearer it, so greatly does this sound deceive one. I should think I walked a full mile before I arrived at the place where the birds were, for there were many of them. I then had a full view of them, as they went through their singular performances.

"There were, in all, about a score. They had selected a piece of open and level ground, and over this they were running in a circle, about twenty feet in diameter. They did not all run in the same direction, but met and crossed each other, although they never deviated much from the circumference of the circle, around which the grass was worn quite bare, and a ring upon the turf looked baked and black. When I first got near, they heard my foot among the leaves, and I saw that one and all of them stopped running,

and squatted close down. I halted, and hid myself behind a tree. After remaining quiet a minute or so, the birds began to stretch up their necks, and then all rose together to their feet, and commenced running round the ring as before. I knew they were performing what is called the 'partridge dance;' and as I had never witnessed it, I held back a while, and looked on. Even hungry as I was, and as I knew all of you to be, so odd were the movements of these creatures, that I could not resist watching them a while, before I sent my unwelcome messenger into their 'ball-room.' Now and then an old cock would separate from the pack, and running out to some distance, would leap upon a rock that was there; then, after dropping his wings, flirting with his spread tail, erecting the ruff upon his neck, and throwing back his head, he would swell and strut upon the rock, exhibiting himself like a diminutive turkey-cock. After manœuvring in this way for a few moments, he would commence flapping his wings in short quick strokes, which grew more rapid as he proceeded, until a 'booming' sound was produced, more like the rumble of distant thunder than any thing I can think of.

"This appeared to be a challenge to the others; and then a second would come out, and, after replying to it by putting himself through a similar series of attitudes, the two would attack each other, and fight with all the fury of a pair of game-cocks.

"I could have watched their manœuvres much longer," continued Basil, "but hunger got the better of me, and I made ready to fire. Those that wer

dancing' moved so quickly round the ring that I could not sight one of them. If I had had a shot gun, I might have covered several, but with the rifle I could not hope for more than a single bird; so, wanting to make sure of that, I waited until an old cock mounted the rock, and got to 'drumming.' Then I sighted him, and sent my bullet through his crop. I heard the loud whirr of the pack as they rose up from the ring; and, marking them, I saw that they all alighted only a couple of hundred yards off, upon a large spruce tree. Hoping they would sit there until I could get another shot, I loaded as quickly as possible, and stepped forward. The course I took brought me past the one I had killed, which I picked up, and thrust hastily into my bag. Beyond this I had to pass over some logs that lay along the ground, with level spaces between them. What was my surprise, in getting among these, to see two of the cocks down upon the grass, and fighting so desperately that they took no notice of my approach! At first I threw up my rifle, intending to fire, but seeing that the birds were within a few feet of me, I thought they might let me lay hold of them, which they, in fact, did; for the next moment I had 'grabbed' both of them, and cooled their bellicose spirits by wringing their heads off.

"I now proceeded to the pack, that still kept the tree. When near enough, I sheltered myself behind another tree; and taking aim at one, I brought him tumbling to the ground. The others sat still. Of course, I shot the one upon the lowest branch: I knew that, so long as I did this, the others would sit

until I might get the whole of them; but that if I shot one of the upper ones, its fluttering down through the branches would alarm the rest, and cause them to fly off. I loaded and fired, and loaded and fired, until half-a-dozen of the birds lay around the root of the tree. I believe I could have killed the whole pack, but it just then occurred to me that I was wasting our precious ammunition, and that, considering the value of powder and shot to us just now, the birds were hardly worth a load apiece: so I left off crack-ing at them. As I stepped forward to gather what I had killed, the rest whirred away into the woods.

"On reaching the tree where they had perched, I was very much surprised to find a raw-hide rope neatly coiled up, and hanging from one of the lower branches. I knew that somebody must have placed it there, and I looked round to see what 'sign' there was besides. My eye fell upon the cinders of an old fire near the foot of the tree; and I could tell that some Indians had made their camp by it. It must have been a good while ago, as the ashes were beaten into the ground by the rain, and, moreover, some young plants were springing up through them. I concluded, therefore, that whoever had camped there had hung the rope upon the tree, and on leaving the place had forgotten it. I took the rope down to examine it: it was no other than a lasso, full fifty feet long, with an iron ring neatly whipped into the loop-end; and, on trying it with a pull, I saw it was in the best condition. Of course, I was not likely to leave such a prize behind me. I had grown, as you may all conceive, to have a very great regard for a rope,

considering that one had just saved all our lives : so I resolved on bringing the lasso with me. In order to carry it the more conveniently, I coiled it, and then hung the coil across my shoulders like a belt. I next packed my game into the bag, which they filled chock up to the mouth, and was turning to come back to camp, when my eye fell upon an object that caused me suddenly to change my intention.

"I was near the edge of the woods, and through the trunks I could see a large open space beyond, where there were no trees, or only one here and there. In the middle of this opening there was a cloud of dust, and in the thick of it I could see two great dark animals in motion. They were running about, and now and then coming together with a sudden rush ; and every time they did so, I could hear a loud thump, like the stroke of a sledge-hammer. The sun was shining upon the yellow dust-cloud, and the animals appeared from this circumstance to be of immense size — much larger than they really were. Had I not known what kind of creatures were before me, I should have believed that the mammoths were still in existence. But I knew well what they were : I had seen many before, carrying on just such a game. I knew they were buffalo bulls, engaged in one of their terrible battles."

Here Basil's narrative was interrupted by a singular incident. Indeed, it had been interrupted more than once by strange noises that were heard at some distance off in the woods. These noises were not all alike : at one time they resembled the barking of a cur dog ; at another, they might have been mistaken

for the gurglings of a person who was being hanged; and then would follow a shriek so dreadful that for some time the woods would echo with its dismal sound. After the shriek a laugh would be heard, but a miserable "haw-haw-haw!" unlike the laugh of a sane person.

All these strange voices were calculated to inspire terror, and so have they many a time, with travellers not accustomed to the solitary woods of America. But our young voyageurs were not at all alarmed by them. They knew from what sort of a creature they proceeded; they knew they were the varying notes of the great horned-owl (*Strix Virginiana*); and as they had seen and heard many a one before, they paid no heed to this individual.

While Basil was going on with his relation, the bird had been several times seen to glide past, and circle around upon his noiseless pinions. So easy was his flight, that the slightest inclining of his spread tail, or the bending of his broad wing, seemed sufficient to turn and carry him in any direction. Nothing could be more graceful than his flight, which was not unlike that of the eagle, while he was but little inferior in size to one of these noble birds.

What interrupted Basil was, that the owl had alighted upon a branch not twenty feet from where they were all sitting round the fire, by the blaze of which they now had a full view of this singular creature. The moment it alighted, it commenced uttering its hideous and unmusical cries, at the same time going through such a variety of contortions, both with its head and body, as to cause the whole party a fit of

laughter. It was, in fact, an odd and interesting sight to witness its grotesque movements, as it turned first its body, and then its head around, without moving the shoulders, while its great honey-colored eyes glared in the light of the fire. At the end of every attitude and utterance, it would snap its bill with such violence that the cracking of the mandibles upon each other might have been heard to the distance of several hundred yards.

This was too much for François' patience to bear, and he immediately crept to his gun. He had got hold of the piece, and cocked it; but, just as he was about to take aim, the owl dropped silently down from the branch, and, gliding gently forward, thrust out its feathered leg, and lifted one of the grouse in its talons. The latter had been lying upon the top of a fallen tree not six feet from the fire! The owl, after clutching it, rose into the air; and the next moment would have been lost in darkness, but the crack of François' rifle put a sudden stop to its flight, and with the grouse still clinging to its claws it fell fluttering to the earth. Marengo jumped forward to seize it; but Marengo little knew the sort of creature he had to deal with. It happened to be only "winged," and as soon as the dog came near, it threw itself upon its back, and struck at him with its talons so wickedly, that he was fain to approach it with more caution. It cost Marengo a considerable fight before he succeeded in getting his jaws over it. During the contest it continually snapped its bill, while its great goggle eyes kept alternately and quickly opening and closing, and the feath

ers being erected all over its body, gave it the appearance of being twice its real size. Marengo at length succeeded in "crunching" it — although not until he was well scratched about the snout — and its useless carcass having been thrown upon the ground, the dog continued to worry and chew at it, while Basil went on with his narration.





CHAPTER X.

BASIL AND THE BISON-BULL.

“As soon as I saw the buffaloes,” continued Basil “my first thought was to get near, and have a shot at them. *They* were worth a charge of powder and lead, and I reflected that if I could kill but one of them, it would insure us against hunger for a couple of weeks to come. So I hung my game-bag to the branch of a tree, and set about approaching them. I saw that the wind was in my favor, and there was no danger of their scenting me. But there was no cover near them — the ground was as level as a table, and there was not a score of trees upon as many acres. It was no use crawling up, and I did not attempt it, but walked straight forward, treading lightly as I went. In five minutes I found myself within good shooting range. Neither of the bulls had noticed me. They were too busy with one another, and in all my life I never saw two creatures fighting in such earnest. They were foaming at the mouth, and the steam poured out of their nostrils incessantly. At times, they would back from each other like a pair of rams, and then rush together head-foremost, until their skulls cracked with the terrible collision. One would have fancied that they would break them at every fresh encounter, but I knew the thickness of a buffalo’s

skull before that time. I remember having fired a musket at one that stood fronting me not more than six feet distant, when, to my surprise, the bullet flattened and fell to the ground before the nose of the buffalo ! The creature was not less astonished than myself, as up to that time it had not seen me.

“Well,” continued Basil, after a pause, “I did not stop long to watch the battle of the bison-bulls. I was not curious about that. I had seen such many a time. I was thinking about the meat ; and I paused just long enough to select the one that appeared to have the most fat upon his flanks, when I drew up my rifle and fired. I aimed for the heart, and my aim was a true one, for the animal came to its knees along with the crack. Just at that moment the other was charging upon it, and, to my surprise, it continued to run on, until striking the wounded one full butt upon the forehead, it knocked the latter right over upon its side ; where, after giving half a dozen kicks, it lay quite dead.

“The remaining bull had dashed some paces beyond the spot, and now turned round again to renew his attack. On seeing his antagonist stretched out and motionless, he seemed to be as much astonished as I was. At first, no doubt, he fancied himself the author of a grand *coup*, for it was plain that up to this time he had neither noticed my presence, nor the report of the rifle. The bellowing noise that both were making had drowned the latter ; and the dust, together with the long shaggy tufts that hung over his eyes, had prevented him from seeing any thing more than his rival, with whom he was engaged. Now that

the other was no longer able to stand before him, and thinking it was himself that had done the deed, he tossed up his head and snorted in triumph. At this moment the matted hair was thrown back from his eyes, and the dust having somewhat settled away, he sighted me, where I stood reloading my gun. I fancied he would take off before I could finish, and I made all the haste in my power — so much so that I dropped the box of caps at my feet. I had taken one out, however, and hurriedly adjusted it, thinking to myself, as I did so, that the box might lie where it was until I had finished the job. I brought the piece to my shoulder, when, to my surprise, the bull, instead of running away, as I had expected, set his head, and uttering one of his terrible bellows, came rushing towards me. I fired, but the shot was a random one, and though it hit him in the snout, it did not in the least disable him. Instead of keeping him off, it only seemed to irritate him the more, and his fury was now at its height.

“I had no time to load again. He was within a few feet of me when I fired, and it was with difficulty that, by leaping to one side, I avoided his horns; but I did so, and he passed me with such violence that I felt the ground shake under his heavy tread.

“He wheeled immediately, and made at me a second time. I knew that if he once touched me I was gone. His horns were set, and his eyes glared with a terrible earnestness. I rushed towards the body of the buffalo that lay near, hoping that this might assist me in avoiding the onset. It did so, for, as he dashed forward over it, he became entangled among the limbs

and again charged without striking me. He turned however, as quick as thought, and again rushed bellowing upon me. There was a tree near at hand. I had noticed it before, but I could not tell whether I should have time to reach it. I was now somewhat nearer it, and, fearing that I might not be able to dodge the furious brute any longer upon the ground, I struck out for the tree. You may be sure I did my best at running. I heard the bull coming after, but before he could overtake me, I had got to the root of the tree. It was my intention, at first, only to take shelter behind the trunk ; but when I had got there, I noticed that there were some low branches, and catching one of these, I swung myself up among them.

"The bull passed under me with a rush — almost touching my feet as I hung by the branch — but I was soon safely lodged in a fork, and out of his reach.

"My next thought was to load my gun, and fire at him from my perch, and, with this intention, I commenced loading. I had no fear but that he would give me an opportunity, for he kept round the tree, and at times attacked the trunk, butting and goring it with his horns, and all the while bellowing furiously. The tree was a small one, and it shook so, that I began to fear it might break down. I therefore made all the haste I could to get in the load, expecting soon to put an end to his attacks. I succeeded at length in ramming down the bullet, and was just turning the gun to put on a cap, when I recollected that the cap box was still lying on the ground where it had fallen. The sudden attack of the animal had prevented me from taking it up. My caps were all within that box.

and my gun, loaded though it was, was as useless in my hands as a bar of iron. To get at the caps would be quite impossible. I dared not descend from the tree. The infuriated bull still kept pacing under it, now going round and round, and occasionally stopping for a moment and looking angrily up.

"My situation was any thing but a pleasant one. I began to fear that I might not be permitted to escape at all. The bull seemed to be most pertinacious in his vengeance. I could have shot him in the back, or the neck, or where I liked, if I had only had one cap. He was within three feet of the muzzle of my rifle; but what of that when I could not get the gun to go off? After a while I thought of making some tinder paper, and then trying to 'touch off' the piece with it, but a far better plan at that moment came into my head. While I was fumbling about my bullet-pouch, to get at my flint and steel, of course my fingers came into contact with the lasso which was still hanging around my shoulders. It was this that suggested my plan, which was no other than *to lasso the bull, and tie him to the tree!*

"I lost no time in carrying it into execution. I uncoiled the rope, and first made one end fast to the trunk. The other was the loop-end, and reeving it through the ring, I held it in my right hand while I leaned over and watched my opportunity. It was not long before a good one offered. The bull still continued his angry demonstrations below, and passed round and round. It was no new thing for me to fling a lasso, and at the first pitch I had the satisfaction of seeing the roose pass over the bison's head, and settle

in a proper position behind his horns. I then gave it a twitch, so as to tighten it, and after that I ran the rope over a branch, and thus getting 'a purchase upon it, I pulled it with all my might.

"As soon as the bull felt the strange cravat around his neck, he began to plunge and 'rout' with violence, and at length ran furiously out from the tree. But he soon came to the end of his tether; and the quick jerk, which caused the tree itself to crack, brought him to his haunches, while the noose tightening on his throat was fast strangling him. But for the thick matted hair it would have done so, but this saved him, and he continued to sprawl and struggle at the end of the rope. The tree kept on cracking, and as I began to fear that it might give way and precipitate me to the ground, I thought it better to slip down. I ran direct to where I had dropped the caps; and, having got hold of the box, I soon had one upon my gun. I then stole cautiously back, and while the bison was hanging himself as fast as he could, I brought his struggles to a period by sending a bullet through his ribs.

"As it was quite night when I had finished the business, of course I could not stay to butcher the bulls. I knew that you would be wondering what kept me, so I cut out the tongues, and coming by the place where I had left the grouse, brought them along. I left a 'scare-wolf' over both the bulls, however, and I guess we'll find them all right in the morning."

Basil having finished the narration of his day's adventures, fresh fuel was heaped on the embers, and a

Large fire was built — one that would last until morning. This was necessary, as none of them had now either blankets or bedding. Basil himself and Norman were even in their shirt-sleeves, and, of course, their only chance for keeping warmth in their bodies would be to keep up a roaring fire all the night. This they did, and all four, laying themselves close together, slept soundly enough.

THREE CURIOUS TREES.

CHAPTER XI.

THREE CURIOUS TREES.

NEXT morning they were awake at an early hour. There was still enough of the tongues and grouse left, along with some ribs of the antelope, to breakfast the party; and then all four set out to bring the flesh of Basil's buffaloes into camp. This they accomplished, after making several journeys. It was their intention to dry the meat over the fire, so that it might keep for future use. For this purpose the flesh was removed from the bones, and after being cut into thin slices and strips, was hung up on poles at some distance from the blaze. Nothing more could be done, but wait until it became sufficiently parched by the heat.

While this process was going on, our voyageurs collected around the fire, and entered into a consultation about what was best to be done. At first they thought of going back to the Red River settlement, and obtaining another canoe, as well as a fresh stock of provisions and implements. But they all believed that getting back would be a toilsome and difficult matter. There was a large lake and several extensive marshes on the route, and these would have to be got round, making the journey a very long one indeed. It would take them days to perform it on foot,

and nothing is more discouraging on a journey than to be forced by some accident to what is called "taking the back track." All of them acknowledged this, but what else could they do? It is true there was a post of the Hudson's Bay Company at the northern end of Lake Winnipeg. This post was called Norway House. How were they to reach that *afoot*? To walk around the borders of the lake would be a distance of more than four hundred miles. There would be numerous rivers to cross, as well as swamps and pathless forests to be threaded. Such a journey would occupy a month or more, and at Norway House they would still be as it were only at the beginning of the great journey on which they had set out. Moreover Norway House lay entirely out of their way. Cumberland House — another trading-post upon the River Saskatchewan — was the next point where they had intended to rest themselves, after leaving the Red River settlements. To reach Cumberland House *afoot* would be equally difficult, as it, too, lay at the distance of hundreds of miles, with lakes, and rivers, and marshes, intervening. What, then, could they do?

"Let us *not* go back," cried François, ever ready with a bold advice; "let us make a boat, and keep on, say I."

"Ha! François," rejoined Basil, "it's easy to say make a boat; 'how is that to be done, I pray?'"

"Why, what's to hinder us to hew a log, and make a dug-out? We have still got the axe and two hatchets left."

Norman asked what François meant by a *dug-out*. The phrase was new to him.

"A canoe, replied François, "hollowed out of a tree. They are sometimes called 'dug-outs' on the Mississippi, especially when they are roughly made. One of them, I think, would carry all four of us well enough. Don't you think so, Luce?"

"Why, yes," answered the student; "a large one might: but I fear there are no trees about here of sufficient size. We are not among the great timber of the Mississippi bottom, you must remember."

"How large a tree would it require?" asked Norman, who knew but little of this kind of craft.

"Three feet in diameter, at least," replied Lucien; "and it should be of that thickness for a length of nearly twenty feet. A less one would not carry four of us."

"Then I am sure enough," responded Norman, "that we won't find such timber here. I have seen no tree of that size either yesterday, or while we were out this morning."

"Nor I," added Basil.

"I don't believe there's one," said Lucien.

"If we were in Louisiana," rejoined François, "I could find fifty canoe-trees by walking as many yards. Why, I never saw such insignificant timber as this here."

"You'll see smaller timber than this, cousin Frank before we reach the end of our voyage."

This remark was made by Norman, who knew that, as they proceeded northward, the trees would be found decreasing in size until they would appear like garden shrubbery.

"But come," continued he, "if we can't build a

craft to carry us from *one* tree, perhaps we can do it out of *three*."

"With three!" echoed François. "I should like to see a canoe made from three trees! Is it a raft you mean, cousin Norman?"

"No," responded the other; "a canoe, and one that will serve us for the rest of our voyage."

All three — Basil, Lucien, and François — looked to their cousin for an explanation.

"You would rather not go back up the river?" he inquired, glancing from one to the other.

"We wish to go on — all of us," answered Basil, speaking for his brothers as well.

"Very well," assented the young fur-trader; "I think it is better as you wish it. Out of these trees I can build a boat that will carry us. It will take us some days to do it, and some time to find the timber, but I am tolerably certain it is to be found in these woods. To do the job properly I want three kinds; two of them I can see from where I sit; the third I expect will be got in the hills we saw this morning."

As Norman spoke, he pointed to two trees that grew among many others not far from the spot. These trees were of very different kinds, as was easily told by their leaves and bark. The nearer and more conspicuous of them at once excited the curiosity of the three Southerners. Lucien recognized it from its botanical description. Even Basil and François, though they had never seen it, as it is not to be found in the hot clime of Louisiana, knew it from the accounts given of it by travellers. The tree was the celebrated "canoe-birch," or, as Lucien named it, "paper-birch"

(*Betula papyracea*), celebrated as the tree out of whose bark those beautiful canoes are made that carry thousands of Indians over the interior lakes and rivers of North America; out of whose bark whole tribes of these people fashion their bowls, their pails, and their baskets; with which they cover their tents, and from which they even make their soup-kettles and boiling-pots! This, then, was the canoe birch-tree, so much talked of, and so valuable to the poor Indians who inhabit the cold regions where it grows.

Our young Southerners contemplated the tree with feelings of interest and curiosity. They saw that it was about sixty feet high, and somewhat more than a foot in diameter. Its leaves were nearly cordate, or heart-shaped, and of a very dark-green color; but that which rendered it most conspicuous among the other trees of the forest, was the shining white or silver-colored bark that covered its trunk, and its numerous slender branches. This bark is only white externally. When you have cut through the epidermis you find it of a reddish tinge, very thick, and capable of being divided into several layers. The wood of the tree makes excellent fuel, and is also often used for articles of furniture. It has a close, shining grain, and is strong enough for ordinary implements; but if exposed to the weather will decay rapidly.

The "canoe-birch" is not the only species of these trees found in North America. The genus *Betula* (so called from the Celtic word *batu*, which means oirch) has at least half-a-dozen other known representatives in these parts. There is the "white-birch" (*B. populifolia*), a worthless tree of some twenty feet

in height, and less than six inches diameter. The bark of this species is useless, and its wood, which is soft and white, is unfit even for fuel. It grows, however, in the poorest soil. Next there is a species called the "cherry-birch" (*B. lenta*), so named from the resemblance of its bark to the common cherry-tree. It is also called "sweet birch," because its young twigs, when crushed, give out a pleasant aromatic odor. Sometimes the name of "black birch" is given to this species. It is a tree of fifty or sixty feet in height, and its wood is much used in cabinet-work, as it is close-grained, of a beautiful reddish color, and susceptible of a high polish.

The "yellow birch" is a tree of the same size, and is so called from the color of its epidermis. It is likewise used in cabinet-work, though it is not considered equal in quality to the cherry-birch. Its leaves and twigs have also an aromatic smell when bruised, not so strong, however, as the last mentioned. The wood makes excellent fuel, and is much used for that purpose in some of the large cities of America. The bark, too, is excellent for tanning — almost equal to that of the oak.

The "red birch" is still another species, which takes its name from the reddish hue of its bark. This is equal in size to the canoe-birch, often growing seventy feet high, with a trunk of nearly three feet diameter. Its branches are long, slender, and pendulous; and it is from the twigs of this species that most of the "birch-brooms" used in America are made.

Still another species of American birches is the "dwarf birch" (*Betula nana*), so called from its di-

minutive size, which is that of a shrub, only eighteen inches or two feet in height. It usually grows in very cold or mountainous regions, and is the smallest of these interesting trees.

This information regarding the birches of America was given by Lucien to his brothers, not at that time, but shortly afterwards, when the three were engaged in felling one of these trees. Just then other matters occupied them, and they had only glanced, first at the canoe-birch and then at the other tree which Norman had pointed out. The latter was of a different genus. It belonged to the order *Coniferæ*, or cone-bearing trees, as was evident from the cone-shaped fruits that hung upon its branches, as well as from its needle-like evergreen leaves.

The cone-bearing trees of America are divided by botanists into three great sub-orders—the *Pines*, the *Cypresses*, and the *Yews*. Each of these includes several genera. By the “pine tribe” is meant all those trees known commonly by the names pine, spruce, fir, and larch; while the *Cupressinæ*, or cypress tribe, are the cypress proper, the cedars, the arbor-vitæ, and the junipers. The yew tribe has fewer genera or species; but the trees in America known as yews and hemlocks—of which there are several varieties—belong to it.

Of the pine tribe a great number of species exist throughout the North American Continent. The late explorations on the western slope of the Rocky Mountains, and in the countries bordering on the Pacific, have brought to light a score of species hitherto unknown to the botanist. Many of these are trees of

a singular and valuable kind. Several species found in the mountains of North Mexico, and throughout those desert regions where hardly any other vegetation exists, have edible seeds upon which whole tribes of Indians subsist for many months in the year. The Spanish Americans call them *piñon* trees, but there are several species of them in different districts. The Indians parch the seeds, and sometimes pound them into a coarse meal, from which they bake a very palatable bread. This bread is often rendered more savory by mixing the meal with dried "prairie crickets," a species of coleopterous insects — that is, insects with a crustaceous or shell-like covering over their wings — which are common in the desert wilds where these Indians dwell. Some prairie travellers have pronounced this singular mixture equal to the "best pound-cake."

The "Lambert pine," so called from the botanist of that name, is found in Oregon and California, and may be justly considered one of the wonders of the world. Three hundred feet is not an uncommon height for this vegetable giant; and its cones have been seen of eighteen inches in length, hanging like sugar-loaves from its high branches! The wonderful "palo colorado" of California is another giant of the pine tribe. It also grows above three hundred feet high, with a diameter of sixteen feet! Then there is the "red pine," of eighty feet high, much used for the decks and masts of ships; the "pitch-pine" (*Pinus rigida*), a smaller tree, esteemed for its fuel, and furnishing most of the firewood used in some of the American cities. From this species the strong burn-

ing "knots" are obtained. There is the "white pine" (*Pinus strobus*), valuable for its timber. This is one of the largest and best known of the pines. It often attains a height of a hundred and fifty feet, and a large proportion of those planks so well known to the carpenter are sawed from its trunk. In the State of New York alone no less than 700,000,000 feet of timber are annually obtained from trees of this species, which, by calculation, must exhaust every year the enormous amount of 70,000 acres of forest! Of course, at this rate the pine-forests of New York State must soon be entirely destroyed.

In addition, there is the "yellow pine," a tree of sixty feet high, much used in flooring houses; and the beautiful "balsam fir," used as an ornamental evergreen both in Europe and America, and from which is obtained the well-known medicine — the "Canada balsam." This tree, in favorable situations, attains the height of sixty feet; while upon the cold summits of mountains it is often seen rising only a few inches from the surface. The "hemlock spruce" (*P. Canadensis*) is another species, the bark of which is used in tanning. It is inferior to the oak, though the leather made by it is of excellent quality. The "black" or "double spruce" (*P. nigra*) is that species from the twigs of which is extracted the essence that gives its peculiar flavor to the well-known "*spruce beer*." Besides these, at least a dozen new species have lately been discovered on the interior mountains of Mexico — all of them more or less possessing valuable properties.

The pines cannot be termed trees of the tropics

yet do they grow in southern and warm countries. In the Carolinas, tar and turpentine, products of the pine, are two staple articles of exportation; and even under the equator itself, the high mountains are covered with pine-forests. But the pine is more especially the tree of a northern *sylva*. As you approach the Arctic circle, it becomes the characteristic tree. There it appears in extensive forests, lending their picturesque shelter to the snowy desolation of the earth. One species of pine is the very last tree that disappears as the traveller, in approaching the pole, takes his leave of the limits of vegetation. This species is the "white spruce" (*Pinus alba*), the very one which, along with the birch-tree, had been pointed out by Norman to his companions.

It was a tree not over thirty or forty feet high, with a trunk of less than a foot in thickness, and of a brownish color. Its leaves or "needles" were about an inch in length, very slender and acute, and of a bluish green tint. The cones upon it, which at that season were young, were of a pale green. When ripe, however, they become rusty-brown, and are nearly two inches in length.

What use Norman would make of this tree in building his canoe, neither Basil nor François knew. Lucien only guessed at it. François asked the question by saying that he supposed the "timbers" were to come out of it.

"No," said Norman, "for that I want still another sort. If I can't find that sort, however, I can manage to do without it, but not so well."

"What other sort?" demanded François.

"I want some cedar-wood," replied the other.

"Ah! that's for the timbers," said François; "I am sure of it. The cedar-wood is lighter than any other, and, I dare say, would answer admirably for ribs and other timbers."

"You are right this time, Frank — it is considered the best for that purpose."

"You think there are cedar-trees on the hills we saw this morning?" said François, addressing his Canadian cousin.

"I think so. I noticed something like them."

"And I, too, observed a dark foliage," said Lucien, "which looked like the cedar. If any where in this neighborhood, we shall find them there. They usually grow upon rocky, sterile hills, such as those appear to be — that is their proper situation."

"The question," remarked Basil, "ought to be settled at once. We have made up our mind to the building of a canoe, and I think we should lose no time in getting ready the materials. Suppose we all set out for the hills."

"Agreed — agreed!" shouted the others with one voice; and then shouldering their guns, and taking the axe along, all four set out for the hills. On reaching these, the object of their search was at once discovered. The tops of all the hills — dry, barren ridges they were — were covered with a thick grove of the red cedar (*Juniperus virginiana*). The trees were easily distinguished by the numerous branches spreading horizontally, and thickly covered with short dark green needles, giving them that sombre, shady appearance that makes them the favorite haunt of

many species of owls. Their beautiful reddish wood was well known to all the party, as it is to almost every one in the civilized world. Every body who has seen or used a black-lead pencil must know what the wood of the red cedar is like — for it is in this the black-lead is usually incased. In all parts of America, where this tree grows in plenty, it is employed for posts and fence-rails, as it is one of the most durable woods in existence. It is a great favorite also for kindling fires, as it catches quickly, and blazes up in a few seconds, so as to ignite the heavier logs of other timbers, such as the oak and the pine.

The red cedar usually attains a height of about thirty to forty feet, but in favorable situations it grows still larger. The soil which it loves best is of a stony, and often sterile character, and dry barren hill-tops are frequently covered with cedars, while the more moist and fertile valleys between possess a *sylva* of a far different character. There is a variety of the red cedar, which trails upon the ground like a creeping plant, its branches even taking root again. This is rather a small bush than a tree, and is often seen hanging down the face of inaccessible cliffs. It is known among botanists as the *Juniperus prostrata*.

“Now,” said Norman, after examining a few of the cedar-trees, “we have here all that’s wanted to make our canoe. We need lose no more time, but go to work at once.”

“Very well,” replied the three brothers, “we are ready to assist you, — tell us what to do.”

“In the first place,” said the other, “I think we had better change our camp to this spot, as I see all the

different kinds of trees here, and much better ones than those near the river. There," continued he, pointing to a piece of moist ground in the valley,—"there are some splendid birches, and there beside them is plenty of the *épinette*" (so the voyageurs term the white spruce). "It will save us many journeys if we go back and bring our meat to this place at once."

To this they all of course agreed, and started back to their first camp. They soon returned with the meat and other things, and having chosen a clean spot under a large-spreading cedar-tree, they kindled a new fire and made their camp by it—that is, they strung up the provisions, hung their horns and pouches upon the branches around, and rested their guns against the trees. They had no tent to pitch, but that is not necessary to constitute a camp. In the phraseology of the American hunter, wherever you kindle your fire or spend the night is a "camp."

CHAPTER XII.

HOW TO BUILD A BARK CANOE.

NORMAN expected that they would be able to **finish** the canoe in about a week. Of course, the sooner the better, and no time was lost in setting about it. The ribs or "timbers" were the first thing to be fashioned, and a number of straight branches of cedar were cut, out of which they were to be made. These branches were cleared of twigs, and rendered of an equal thickness at both ends. They were then flattened with the knife; and, by means of a little sweating in the ashes, were bent so as to bear some resemblance in shape to the wooden ox-yokes commonly used in America, or indeed to the letter U. The ribs when thus bent were not all of the same width. On the contrary, those which were intended to be placed near the middle or gangway of the vessel, were about two feet across from side to side, while the space between the sides of the others was gradually less in each fresh pair, according as their position was to be near to the stem and stern. When the whole of them had been forced into the proper shape, they were placed, one inside the other after the manner of dishes, and then all were firmly lashed together, and left to dry. When the lashing should be removed, they would hold to the form thus given them, and would be ready for fastening to the keelson.

While Norman was occupied with the timbers the others were not idle. Basil had cut down several of the largest and straightest birches, and Lucien employed himself in carefully removing the bark and cleansing it of nodules and other inequalities. The broad sheets were suspended by a smoke fire, so as completely to dry up the sap, and render it tough and elastic. François had his part to play, and that was to collect the resinous gum which was distilled in plenty from the trunks of the *épinette* or spruce-trees. This gum is a species of pitch, and is one of the most necessary materials in the making of a bark canoe. It is used for "paying" the seams, as well as any cracks that may show themselves in the bark itself; and without it, or some similar substance, it would be difficult to make one of these little vessels water-tight. But that is not the only thing for which the *épinette* is valued in canoe-building; far from it. This tree produces another indispensable material; its long fibrous roots, when split, form the twine-like threads by which the pieces of bark are sewed to each other and fastened to the timbers. These threads are as strong as the best cords of hemp, and are known among the Indians by the name of "watap." In a country, therefore, where hemp and flax cannot be readily procured, the "watap" is of great value. You may say that deer are plenty, and that thongs of buckskin would serve the same purpose. This, however, is not the case. The buckskin would never do for such a use. The moment it becomes wet it is liable to stretch, so that the seams would open and the canoe get filled with water. The watap, wet or

try, does not yield, and has therefore been found to be the best thing of all others for this purpose.

The only parts now wanted were the gunwale and the bottom. The former was easily obtained. Two long poles, each twenty feet in length, were bent somewhat like a pair of bows, and then placed with their convex sides towards each other, and firmly lashed together at the ends. This was the gunwale. The bottom was the most difficult part of all. For that a solid plank was required, and they had no saw. The axe and the hatchet, however, were called into requisition, and a log was soon hewn and thinned down to the proper dimensions. It was sharpened off at the ends, so as to run to a very acute angle, both at the stem and stern. When the bottom was considered sufficiently polished, and modelled to the right shape, the most difficult part of the undertaking was supposed to be accomplished. A few long poles were cut and trimmed flat. These were to be laid longitudinally between the ribs and the bark, somewhat after the fashion of laths in the roofing of a house. Their use was to prevent the bark from splitting. The materials were now all obtained complete, and, with a few days' smoking and drying, would be ready for putting together.

While waiting for the timbers to dry, paddles were made, and Norman, with the help of the others, prepared what he jokingly called his "dock," and also his "ship-yard." This was neither more nor less than a long mound of earth — not unlike a new-made grave, only three times the length of one, or even longer. It was flat upon the top, and graded with earth so as to be quite level and free from inequalities.

At length all the materials were considered quite ready for use, and Norman went to work to put them together

His first operation was to untie the bundle of timbers, and separate them. They were found to have taken the exact form into which they had been bent, and the thongs, being no longer necessary to keep them in place, were removed. The timbers themselves were next placed upon the bottom or keelson, those with the widest bottoms being nearer to "midships," while those with the narrower bend were set towards the narrower ends of the plank. Thus placed, they were all firmly lashed with strong cords of watap, by means of holes pierced in the bottom plank. Fortunately Lucien happened to have a pocket-knife, in which there was a good awl or piercer, that enabled them to make these holes — else the matter would have been a much more difficult one, as an awl is one of the most essential tools in the construction of a bark canoe. Of course, it took Norman a considerable time to set all the ribs in their proper places, and fasten them securely; but he was ably assisted by François, who waited upon him with much diligence, handing him now the awl, and then the watap, whenever he required them.

Norman's next operation was the laying of his keelson "in dock." The timbers being attached to it it was lifted up on the earthen mound, where it reached quite from end to end. Half-a-dozen large heavy stones were then placed upon it, so that, pressed down by these upon the even surface of the mould, it was rendered quite firm; and, moreover, was of such a

height from the ground that the young shipwright could work upon it without too much bending and kneeling.

The gunwale, already prepared, was next placed so as to touch the ends of the ribs all round, and these ends were adjusted to it with great nicety, and firmly joined. Strong cross-pieces were fixed, which were designed, not only to keep the gunwale from spreading or contracting, but afterwards to serve as seats.

Of course, the gunwale formed the complete mouth, or upper edge of the canoe. It was several feet longer than the bottom plank, and, when in place, projected beyond the ribs at both ends. From each end of the bottom plank, therefore, to the corresponding end of the gunwale, a straight piece of wood was stretched, and fastened. One of these pieces would form the stem or cutwater, while the other would become the stern of the craft. The long poles were next laid longitudinally upon the ribs outside, and lashed in their places; and this done, the skeleton was completed, ready for the bark.

The latter had been already cut to the proper dimensions and shape. It consisted of oblong pieces — each piece being a regular parallelogram, as it had been stripped from the tree. These were laid upon the ribs longitudinally, and then sewed to the edge of the bottom plank, and also to the gunwale. The bark itself was in such broad pieces that two of them were sufficient to cover half a side, so that but one seam was required lengthwise, in addition to the fastenings at the top and bottom. Two lengths of the bark also

reached cleverly from stem to stern, and thus required only one transverse seam on each side. There was an advantage in this arrangement, for where the birch-bark can only be obtained in small flakes, a great number of seams is a necessary consequence, and then it is extremely difficult to keep the canoe from leaking. Thanks to the fine birch-trees, that grew in abundance around, our boat-builders had procured the very best bark.

The canoe was now completed all but the "paying," and that would not take long to do. The gum of the *épinette* had to be boiled, and mixed with a little grease, so as to form a species of wax. For this the fat already obtained from the buffaloes was the very thing; and a small tin cup which Basil had saved from the wreck (it had been strung to his bullet-pouch), enabled them to melt the gum, and apply it hot. In less than an hour the thing was done. Every crack and awl-hole was payed, and the canoe was pronounced "watertight," and, as François added, with a laugh, "seaworthy."

A small pond was near, at the bottom of the hill: François espied it.

"Come, boys," cried he, "a launch! a launch!"

This was agreed to by all. The great stones were taken out. Basil and Norman, going one to the stem the other to the stern, lifted the canoe from the "dock" and, raising it upon their shoulders, carried it down to the pond. The next moment it was pushed into the water, where it floated like a cork. A loud cheer was given, in which even Marengo joined; and a salute was then fired — a full broadside — from the

four guns. François, to complete the thing, seized one of the paddles, and leaping into the canoe, shot the little craft out upon the bosom of the pond, cheering all the while like one frantic. After amusing himself for some minutes, he paddled back to the shore, when they all looked eagerly into the canoe, and perceived to their gratification that not as much as a drop of water had leaked during the "trip." Thanks and congratulations now greeted Norman from every side; and, taking their vessel from the water, the young voyageurs returned to their camp, to regale themselves with a grand dinner, which Lucien had cooked for the occasion.

CHAPTER XIII.

THE CHAIN OF LAKES.

OUR young voyageurs now prepared to resume their journey. While Norman was engaged in building his canoe, with his assistant, François, the others had not been idle. Basil was, of course, the hunter of the party; and, in addition to the small game, such as hares, geese, and grouse, he had killed three caribou, of the large variety known as "woodland caribou." These are a species of the reindeer (*Cervus tarandus*), of which I have more to say hereafter. Lucien had attended to the drying of their flesh; and there was enough of it still left, as our voyageurs believed, to supply their wants until they should reach Cumberland House, where they would, of course, procure a fresh stock of provisions. The skins of the caribou had also been scraped and dressed by Lucien — who understood the process well — and these, with the skin of the antelope, were sufficient to make a pair of hunting shirts for Basil and Norman, who, it will be remembered, had lost theirs by cutting them up.

Next morning the canoe was launched upon the river — below the rapids — and the dried meat, with their other matters, snugly stowed in the stern. Then the young voyageurs got in, and, seating themselves in their places, seized hold of the paddles. The next

moment the canoe shot out into the stream; and a triumphant cheer from the crew announced that they had recommenced their journey. They found to their delight that the little vessel behaved admirably,— shooting through the water like an arrow, and leaking not water enough, as François expressed it, “to drown a mosquito.” They had all taken their seats in the order which had been agreed upon for the day. Norman was “bowsman,” and, of course, sat in the bow. This, among the regular Canadian voyageurs, is esteemed the post of honor, and the bowsman is usually styled “Captain” by the rest of the crew. It is also the post that requires the greatest amount of skill on the part of its occupant, particularly where there are rapids or shoals to be avoided. The post of “steersman” is also one of honor and importance; and both steersman and bowsman receive higher wages than the other voyageurs, who pass under the name of “middlemen.” The steersman sits in the stern, and that place was now occupied by Lucien, who had proved himself an excellent steersman. Basil and François were, of course, the “middlemen,” and plied the paddles. This was the arrangement made for the day; but although on other days the programme was to be changed, so as to relieve Basil and François, on all occasions when there were rapids or other difficulties to be encountered, they were to return to this order. Norman, of course, understood canoe navigation better than his Southern cousins; and therefore, by universal assent, he was acknowledged “the Captain,” and François always addressed him as such. Lucien’s claim to the post

of second honor was admitted to be just, as he had proved himself capable of filling it to the satisfaction of all. Marengo had no post, but lay quietly upon the buffalo skin between Lucien's legs, and listened to the conversation without joining in it, or in any way interfering in the working of the vessel.

In a few hours our voyageurs had passed through the low marshy country that lies around the mouth of the Red River, and the white expanse of the great Lake Winnipeg opened before them, stretching northward far beyond the range of their vision. Norman knew the lake, having crossed it before, but its aspect somewhat disappointed the Southern travellers. Instead of a vast, dark lake which they had expected to see, they looked upon a whitish muddy sheet, that presented but few attractive points to the eye, either in the hue of its water, or the scenery of its shores. These, so far as they could see them, were low, and apparently marshy; and this is, in fact, the character of the southern shores of Winnipeg. On its east and north, however, the country is of a different character. There the geological formation is what is termed *primitive*. The rocks consist of granite, sienite, gneiss, &c.; and, as is always the case where such rocks are found, the country is hilly and rugged. On the western shores a *secondary* formation exists. This is *stratified limestone*, — the same as that which forms the bed of many of the great prairies of America; and, indeed, the Lake Winnipeg lies between this secondary formation and the primitive, which bounds it on the east. Along its western shores extends the flat limestone country, partly wooded and partly prairie land,

running from that point for hundreds of miles up to the very foot of the Rocky Mountains, where the primitive rocks again make their appearance in the rugged peaks of that stupendous chain. Lake Winnipeg is nearly three hundred miles in length, but it is very narrow, — being, in its widest reach, not over fifty miles, and in many places only fifteen miles from shore to shore. It trends nearly due north and south, leaning a little north-west and south-east, and receives many large rivers, as the Red, the Saskatchewan, and the Winnipeg. The waters of these are again carried out of it by other rivers that run from the lake, and empty into the Hudson's Bay. There is a belief among the hunters and voyageurs that this lake has its tides like the ocean. Such, however, is not the case. There is at times a rise and overflow of its waters, but it is not periodical, and is supposed to be occasioned by strong winds forcing the waters towards a particular shore.

Lake Winnipeg is remarkable, as being in the very centre of the North American Continent, and may be called the centre of the *canoe navigation*. From this point it is possible to travel *by water* to Hudson's Bay on the north-east, to the Atlantic Ocean on the east, to the Gulf of Mexico on the south, to the Pacific on the west, and to the Polar Sea on the north and north-west. Considering that some of these distances are upwards of three thousand miles, it will be perceived that Lake Winnipeg holds a singular position upon the continent. All the routes mentioned can be made without any great "portage," and even a choice of

route is often to be had upon those different lines of communication.

These were points of information communicated by Norman as the canoe was paddled along the shore, for Norman, although troubling himself but little about the causes of things, possessed a good practical knowledge of things as they actually were. He was tolerably well acquainted with the routes, their portages, and distances. Some of them he had travelled over in company with his father, and of others he had heard the accounts given by the voyageurs, traders, and trappers. Norman knew that Lake Winnipeg was muddy,—he did not care to inquire the cause. He knew that there was a hilly country on its eastern and a low level land on its western shores, but it never occurred to him to speculate on this geological difference. It was the naturalist Lucien who threw out some hints on this part of the subject, and further added his opinion, that the lake came to be there in consequence of the wearing away of the rocks at the junction of the stratified with the primitive formation, thus creating an excavation in the surface, which in time became filled with water and formed the lake. This cause he also assigned for the existence of a remarkable “chain of lakes” that extends almost from the Arctic Sea to the frontiers of Canada. The most noted of these are Martin, Great Slave, Athabasca, Wollaston, Deer, Lake Winnipeg, and the Lake of the Woods. Lucien further informed his companions that where primitive rocks form the surface of a country, that surface will be found to exhibit

great diversity of aspect. There will be numerous lakes and swamps, rugged steep hills with deep valleys between, short streams with many falls and rapids. These are the characteristics of a primitive surface. On the other hand, where secondary rocks prevail the surface is usually a series of plains, often high, dry, and treeless, as is the case upon the great American prairies.

Upon such topics did Lucien instruct his companions, as they paddled their canoe around the edge of the lake. They had turned the head of their little vessel westward, as it was their design to keep along the western border of the lake until they should reach the mouth of the Saskatchewan. They kept at a short distance from the shore, usually steering from point to point, and in this way making their route as direct as possible. It would have been still more direct had they struck out into the open lake, and kept up its middle; but this would have been a dangerous course to pursue. There are often high winds upon Lake Winnipeg, that spring up suddenly; and at such times the waves, if not mountains high, at least arrive at the height of houses. Among such billows the little craft would have been in danger of being swamped, and our voyageurs of going to the bottom. They therefore wisely resolved not to risk such an accident, but to "hug the shore," though it made their voyage longer. Each night they would land at some convenient place, kindle their fire, cook their supper, and dry their canoe for the next day's journey.

According to this arrangement, a little before sun

set of the first day they came to land and made their camp. The canoe was unloaded, carefully lifted out of the water, and then set bottom upward to drip and dry. A fire was kindled, some of the dry meat cooked, and all four sat down and began to eat, as only hungry travellers can.

CHAPTER XIV.

WAPITI, WOLVES, AND WOLVERENE.

THE spot where our voyageurs had landed was at the bottom of a small bay. The country back from the lake was level and clear of timber. Here and there, nearer the shore, however, its surface was prettily interspersed with small clumps of willows, that formed little copse-like thickets of deep green. Beside one of these thickets, within a hundred yards of the beach, the fire had been kindled, on a spot of ground that commanded a view of the plain for miles back.

"Look yonder!" cried François, who had finished eating, and risen to his feet. "What are these, captain?" François pointed to some objects that appeared at a great distance off upon the plain.

The "captain" rose up, placed his hand so as to shade his eyes from the sun, and, after looking for a second or two in the direction indicated, replied to the other's question by simply saying, —

"Wapiti."

"I'm no wiser than before I asked the question," said François. "Pray, enlighten me as to what a wapiti may be!"

"Why, red deer; or elk, if you like."

"O, elk — now I understand you. I thought they were elk, but they're so far off I wasn't sure."

Lucien at this moment rose up, and looking through a small telescope, which he carried, confirmed the statement of the "captain," and pronounced it to be a herd of elk.

"Come, Luce," demanded François, "tell us what you know of the elk. It will pass the time. Norman says it's no use going after them out there in the open ground, as they'd shy off before one could get within shot. You see there is not a bush within half-a-mile of them."

"If we wait," interrupted Norman, "I should not wonder but we may have them among the bushes before long. They appear to be grazing this way. I warrant you they'll come to the lake to drink before nightfall."

"Very well, then; the philosopher can tell us all about them before that."

Lucien, thus appealed to, began:—

"There are few animals that have so many names as this. It is called in different districts, or by different authors, *elk*, *round-horned elk*, *American elk*, *stag*, *rea deer*, *gray moose*, *le biche*, *wapiti*, and *wewaskish*. Naturalists have given not a few of their designations, as *Cervus Canadensis*, *C. major*, *C. alces*, *C. strongylocerus*, &c.

"You may ask, Why so many names? I shall tell you. It is called 'elk' because it was supposed by the early colonists to be the same as the elk of Europe. Its name of 'gray moose' is a hunter appellation, to distinguish it from the real moose, which the same hunters know as the 'black moose.' 'Round-horned elk' is also a hunter name. 'Wewaskish,' or

'waskesse,' is an Indian name for the animal. 'Stag' comes from the European deer, so called, because this species somewhat resembles the stag; and 'red deer' is a name used by the Hudson Bay traders. 'Le biche' is another synonyme of French authors.

"Of all these names, I think that of 'wapiti,' which our cousin has given, the best. The names of 'elk,' 'stag,' and 'red deer,' lead to confusion, as there are other species to which they properly belong, all of which are entirely different from the wapiti. I believe that this last name is now used by the best-informed naturalists.

"In my opinion," continued Lucien, "the wapiti is the noblest of all the deer kind. It possesses the fine form of the European stag, while it is nearly a third larger and stronger. It has all the grace of limb and motion that belongs to the common deer, while its towering horns give it a most majestic and imposing appearance. Its color during the summer is of a reddish brown, hence the name red deer; but, indeed, the reddish tint upon the wapiti is deeper and richer than that of its European cousin. The wapiti, like other deer, brings forth its fawns in the spring. They are usually a male and female, for two is the number it produces. The males only have horns; and they must be several years old before the antlers become full and branching. They fall every year, but not until February or March, and then the new ones grow out in a month or six weeks. During the summer the horns remain soft and tender to the touch. They are covered at this time with a soft membrane that looks like grayish velvet, and they are then said to be 'in

the velvet.' There are nerves and blood-vessels running through this membrane, and a blow upon the horns at this season gives great pain to the animal. When the autumn arrives, the velvet peels off, and they become as hard as bone. They would need to be, for this is the 'rutting' season, and the bucks fight furious battles with each other, clashing their horns together, as if they would break them to pieces. Very often a pair of bucks, while thus contending, lock' their antlers, and being unable to draw them apart, remain head to head until both die with hunger, or fall a prey to the prowling wolves. This is true not only of the elk, but also of the reindeer, the moose, and many other species of deer. Hundreds of pairs of horns have been found thus 'locked,' and the solitary hunter has often surprised the deer in this unpleasant predicament.

"The wapiti utters a whistling sound, that can be heard far off, and often guides the hunter to the right spot. In the rutting season the bucks make other noises, which somewhat resemble the braying of an ass, and are equally disagreeable to listen to.

"The wapiti travel about in small herds, rarely exceeding fifty, but often of only six or seven. Where they are not much hunted they are easily approached, but otherwise they are shy enough. The bucks, when wounded and brought to bay, become dangerous assailants; much more so than those of the common deer. Hunters have sometimes escaped with difficulty from their horns and hoofs, with the latter of which they can inflict very severe blows. They are hunted in the same way as other deer; but the **h**

dians capture many of them in the water, when they discover them crossing lakes or rivers. They are excellent swimmers, and can make their way over the arm of a lake or across the widest river.

"They feed upon grass, and sometimes on the young shoots of willows and poplar trees. They are especially fond of a species of wild rose (*Rosa blanda*), which grows in the countries they frequent.

"The wapiti at one time ranged over a large part of the continent of North America. Its range is now restricted by the spread of the settlements. It is still found in most of the northern parts of the United States, but only in remote mountainous districts, and even there it is a rare animal. In Canada it is more common; and it roams across the continent to the shores of the Pacific. It is not an animal of the tropical countries, as it is not found in Mexico proper. On the other hand, wapiti do not go farther north than about the fifty-seventh parallel of latitude, and then they are not in their favorite habitat, which is properly the temperate zone."

Lucien was interrupted by an exclamation from Basil, who stood up looking out upon the prairie. They all saw that he had been observing the wapiti.

"What is it?" cried they.

"Look yonder!" replied Basil, pointing in the direction of the herd. "Something disturbs them. Give me your glass, Luce."

Lucien handed the telescope to his brother, who, drawing it to the proper focus, pointed it towards the deer. The rest watched them with the naked eye. They could see that there was some trouble among

the animals. There were only six in the herd, and even at the distance our voyageurs could tell that they were all bucks, for it was the season when the does secrete themselves in the woods and thickets to bring forth their young. They were running to and fro upon the prairie, and doubling about as if playing, or rather as if some creature was chasing them. With the naked eye, however, nothing could be seen upon the ground but the bucks themselves, and all the others looked to Basil, who held the glass, for an explanation of their odd manœuvres.

"There are wolves at them," said Basil, after regarding them for a second or two.

"That's odd," rejoined Norman. "Wolves don't often attack full-grown wapiti, except when wounded or crippled somehow. They must be precious hungry. What sort of wolves are they?"

To you, boy reader, this question may seem strange. You, perhaps, think that a wolf is a wolf, and there is but one kind. Such, however, is not the exact truth. In America there are two distinct species of wolves, and of these two species there are many varieties, which differ so much in color and other respects, that some authors have classed them as so many distinct species, instead of considering them mere varieties. Whether they may be species or not is still a question among naturalists; but certain it is that *two* well-defined species do exist, which differ in size, form, color, and habits. These are the *large* or *common wolf* (*Canis lupus*), and the *barking* or *prairie wolf* (*Canis latrans*). The first species is the *American* representative of the common wolf of Europe; and

although an animal of similar nature and habits, it differs very much from the latter in form and appearance. It is, therefore, not the *same*, as hitherto supposed. This American wolf is found in greater or less numbers throughout the whole continent; but in the northern regions it is very common, and is seen in at least five different varieties, known by the characteristic names of *black*, *pied*, *white*, *dusky*, and *gray* wolves. Of these the gray is the most numerous kind; but as I shall have occasion to speak of the large wolves hereafter, I shall say no more of them at present, but direct your attention to the second and very different species, the *prairie wolves*.

These are a full third smaller than the common kind. They are swifter, and go in larger packs. They bring forth their young in burrows on the open plain, and not among the woods, like the other species. They are the most cunning of American animals, not excepting their kindred the foxes. They cannot be trapped by any contrivance, but by singular manœuvres often themselves decoy the over-curious antelope to approach too near them. When a gun is fired upon the prairies they may be seen starting up on all sides, and running for the spot in hopes of coming in for a share of the game. Should an animal — deer, antelope, or buffalo — be wounded, and escape the hunter, it is not likely to escape them also. They will set after it, and run it down, *if the wound has been a mortal one*. On the other hand, if the wound has been only slight, and is not likely in the end to cripple the animal, the wolves will not stir from the spot. This extraordinary sagacity often tells

the hunter whether it is worth his while to follow the game he has shot at; but in any case he is likely to arrive late, if the wolves set out before him, as a dozen of them will devour the largest deer in a few minutes' time. The prairie wolves as well as the others follow the herds of buffaloes, and attack the gravid cows and calves when separated from the rest. Frequently they sustain a contest with the bulls, when the latter are old or wounded, but on such occasions many of them get killed before the old bull becomes their prey.

They resemble the common gray wolf in color, but there are varieties in this respect, though not so great as among the larger species. Their voice is entirely different, and consists of three distinct barks, ending in a prolonged howl. Hence the specific and usual name "barking-wolf" (*C. latrans*). They are found only in the western or prairie half of the continent, and thence west to the Pacific. Their northern range is limited to the fifty-fifth parallel of latitude — but they are met with southward throughout Mexico, where they are common enough, and known by the name of "coyoté."

Their skins are an article of trade with the Hudson's Bay Company. The fur is of about the same quality with that of other wolves, and consists of long hairs, with a thick wool at the base. In commerce they are termed "cased wolves," because their skins, on being removed, are not split open as with the large wolf-skins, but are stripped off after the manner of rabbits, and then turned inside out, or "cased," as it is termed.

So much for the *Canis latrans*.

"Prairie wolves!" said Basil, in answer to the question put by his cousin.

"There must be something the matter with one of the bucks, then," remarked Norman, "or else there's a good big pack of the wolves, and they expect to tire one down. I believe they sometimes do try it that way."

"There appears to be a large pack," answered Basil, still looking through the glass; "fifty at least. — See! they have separated one of the bucks from the herd — it's running this way!"

Basil's companions had noticed this as soon as himself, and all four now leaped to their guns. The wapiti was plainly coming towards them, and they could now distinguish the wolves following upon his heels, strung out over the prairie like a pack of hounds. When first started, the buck was a full half-mile distant, but in less than a minute's time he came breasting forward until the boys could see his sparkling eyes and the play of his proud flanks. He was a noble animal to look at. His horns were full grown, but still "in the velvet," and as he ran with his snout thrown forward, his antlers lay along both sides of his neck until their tips touched his shoulders. He continued on in a direct line until he was within less than a hundred paces of the camp; but, perceiving the smoke of the fire, and the figures crouching around it, he swerved suddenly from his course, and darted into the thicket of willows, where he was for the moment hidden from view. The wolves — fifty of them at least — had followed him up to this point; and as

he entered the thicket several had been close upon his heels. The boys expected to see the wolves rush in after him -- as there appeared to be no impediment to their doing so -- but, to the astonishment of all, the latter came to a sudden halt, and then went sneaking back -- some of them even running off as if terrified! At first the hunters attributed this strange conduct to their own presence, and the smoke of the camp; but a moment's reflection convinced them that this could not be the reason of it, as they were all well acquainted with the nature of the prairie wolf, and had never witnessed a similar exhibition before.

They had no time to think of the wolves just then. The buck was the main attraction, and, calling to each other to surround the thicket, all four started in different directions. In a couple of minutes they had placed themselves at nearly equal distances around the copse, and stood watching eagerly for the reappearance of the wapiti.

The willows covered about an acre of ground, but they were tolerably thick and full-leaved, and the buck could not be seen from any side. Wherever he was, he was evidently at a stand-still, for not a rustle could be heard among the leaves, nor were any of the tall stalks seen to move.

Marengo was now sent in. This would soon start him, and all four stood with guns cocked and ready. But before the dog had made three lengths of himself into the thicket, a loud snort was heard, followed by a struggle and the stamping of hoofs, and the next moment the wapiti came crashing through the bushes. A shot was fired -- it was the crack of Lucien's small



Number of leaves	Control (%)	Defoliated (%)
0	10	10
1	25	25
2	45	45
3	65	65
4	80	35
5	75	25
6	80	20
7	85	15
8	80	10
9	85	10
10	80	10

rifle — but it had missed, for the buck was seen passing onward and outward. All ran round to the side he had taken, and had a full view of the animal as he bounded off. Instead of running free as before, he now leaped heavily forward, and what was their astonishment on seeing that he *carried another animal upon his back!*

The hunters could hardly believe their eyes, but there it was, sure enough, a brown shaggy mass, lying flat along the shoulders of the wapiti, and clutching it with large spreading claws. François cried out, “A panther!” and Basil at first believed it to be a bear, but it was hardly large enough for that. Norman, however, who had lived more in those parts where the animal is found, knew it at once to be the dreaded “wolverene.” Its head could not be seen, as that was hid behind the shoulder of the wapiti, whose throat it was engaged in tearing. But its short legs and broad paws, its bushy tail and long shaggy hair, together with its round-arching back and dark-brown color, were all familiar marks to the young fur-trader; and he at once pronounced it a “wolverene.”

When first seen, both it and the wapiti were beyond the reach of their rifles; and the hunters, surprised by such an unexpected apparition, had suddenly halted. François and Basil were about to renew the pursuit, but were prevented by Norman, who counselled them to remain where they were.

“They won’t go far,” said he; “let us watch them a bit. See! the buck takes the water!”

The wapiti, on leaving the willows, had run straight out in the first direction that offered, which happened

to be in a line parallel with the edge of the lake. His eye, however, soon caught sight of the water, and, doubling suddenly round, he made directly towards it, evidently with the intention of plunging in. He had hopes, no doubt, that by this means he might rid himself of the terrible creature that was clinging to his shoulders and tearing his throat to pieces.

A few bounds brought him to the shore. There was no beach at the spot. The bank — a limestone bluff — rose steeply from the water's edge to a height of eight feet, and the lake under it was several fathoms in depth. The buck did not hesitate, but sprang outward and downwards. A heavy splash followed, and for some seconds both wapiti and wolverene were lost under the water. They rose to the surface just as the boys reached the bank, but they came up *separately*. The dip had proved a cooler to the fierce wolverene; and while the wapiti was seen to strike boldly out into the lake and swim off, the latter — evidently out of his element — kept plunging about clumsily, and struggling to get back to the shore. Their position upon the cliff above gave the hunters an excellent opportunity with their rifles, and both Basil and Norman sent their bullets into the wolverene's back. François also emptied his double-barrelled gun at the same object, and the shaggy brute sank dead to the bottom of the lake. Strange to say, not one of the party had thought of firing at the buck. This persecution by so many enemies had won for him their sympathy, and they would now have suffered him to go free; but the prospect of fresh venison for supper overcame their commiseration, and the moment

the wolverene was despatched all set about securing the deer. Their guns were reloaded, and, scattering along the shore, they prepared to await his return. But the buck, seeing there was nothing but death in his rear, swam on, keeping almost in a direct line out into the lake. It was evident to all that he could not swim across the lake, as its farther shore was not even visible. He must either return to where they were, or drown; and knowing this to be his only alternative, they stood still and watched his motions. When he had got about half a mile from the shore, to the surprise of all, he was seen to rise higher and higher above the surface, and then all at once stop, with half of his body clear out of the water! He had come upon a shoal, and, knowing the advantage of it, seemed determined to remain there.

Basil and Norman ran to the canoe, and in a few minutes the little craft was launched, and shooting through the water. The buck now saw that it was likely to be all up with him, and, instead of attempting to swim farther, he faced round and set his antlers forward in a threatening attitude. But his pursuers did not give him the chance to make a rush. When within fifty yards or so, Norman, who used the paddles, stopped and steadied the canoe, and the next moment the crack of Basil's rifle echoed over the lake, and the wapiti fell upon the water, where, after struggling a moment, he lay dead.

The canoe was paddled up, and his antlers being made fast to the stern, he was towed back to the shore, and carried into camp. What now surprised our voyageurs was, their finding that the wapiti had been

wounded before encountering either the wolves, wolverene, or themselves. An arrow-head, with a short piece of the shaft, was sticking in one of his thighs. The Indians, then, had been after him, and very lately too, as the wound showed. It was not a mortal wound, had the arrow-head been removed ; but of course, as it was, it would have proved his death in the long run. This explained why the wolves had assailed an animal, that otherwise, from his great size and strength, would have defied them. The wolverene, moreover, rarely attacks game so large as the wapiti ; but the latter had, no doubt, chanced upon the lair of his fierce enemy, who could not resist such a tempting opportunity of getting a meal. The wolves had seen the wolverene as they approached the thicket, and that accounted for their strange behavior in the pursuit. These creatures are as great cowards as they are tyrants, and their dread of a wolverene is equal to that with which they themselves often inspire the wounded deer.

CHAPTER XV.

A PAIR OF DEEP DIVERS.

THE wapiti was carefully skinned, and the skin spread out to dry. Since their mishap our voyageurs had been very short of clothing. The three skins of the woodland caribou had made only a pair of jackets, instead of full hunting-shirts, and even these were pinched fits. For beds and bed-clothes they had nothing but the hides of buffaloes, and these, although good as far as they went, were only enough for two. Lucien, the most delicate of the party, appropriated one, as the others insisted upon his so doing. François had the other. As for Basil and Norman, they were forced each night to lie upon the naked earth, and but for the large fires which they kept blazing all the night, they would have suffered severely from cold. Indeed, they did suffer quite enough; for some of the nights were so cold, that it was impossible to sleep by the largest fire without one-half of their bodies feeling chilled. The usual practice with travellers in the Far West is to lie with their feet to the fire, while the head is at the greatest distance from it. This is considered the best mode, for so long as the feet are warm, the rest of the body will not suffer badly; but, on the contrary, if the feet are allowed to get cold, no matter what state the other parts be in, it is impossible to sleep with comfort

Of course our young voyageurs followed the well-known practice of the country, and lay with their feet to the fire in such a manner that, when all were placed, their bodies formed four radii of a circle, of which the fire was the centre. Marengo usually lay beside Basil, whom he looked upon as his proper master.

Notwithstanding a bed of grass and leaves which they each night spread for themselves, they were sadly in want of blankets, and therefore the skin of the wapiti, which was a very fine one, would be a welcome addition to their stock of bedding. They resolved, therefore, to remain one day where they had killed it, so that the skin might be dried and receive a partial dressing. Moreover, they intended to "jerk" some of the meat — although elk-venison is not considered very palatable where other meat can be had. It is without juice, and resembles dry short-grained beef more than venison. For this reason it is looked upon by both Indians and white hunters as inferior to buffalo, moose, caribou, or even the common deer. One peculiarity of the flesh of this animal is, that the fat becomes hard the moment it is taken off the fire. It freezes upon the lips like suet, and clings around the teeth of a person eating it, which is not the case with that of other species of deer. The skin of the wapiti, however, is held in high esteem among the Indians. It is thinner than that of the moose, but makes a much better article of leather. When dressed in the Indian fashion — that is to say, soaked in a lather composed of the brains and fat of the animal itself and then washed, dried, scraped, and smoked — it becomes as soft and pliable as a kid glove, and will wash

and dry without stiffening like chamois leather. That is a great advantage which it has, in the eyes of the Indians, over the skins of other species of deer, as the moose and caribou — for the leather made from these, after a wetting, becomes harsh and rigid, and requires a great deal of rubbing to render it soft again.

Lucien knew how to dress the elk-hide, and could make leather out of it as well as any Indian squaw in the country. But travelling as they were, there was not a good opportunity for that; so they were content to give it such a dressing as the circumstances might allow. It was spread out on a frame of willow-poles, and set up in front of the fire, to be scraped at intervals and cleared of the fatty matter, as well as the numerous parasites that at this season adhere to the skins of the wapiti.

While Lucien was framing the skin, Basil and Norman occupied themselves in cutting the choice pieces of the meat into thin slices and hanging them up before the fire. This job being finished, all sat down to watch Lucien currying his hide.

"Ho, boys!" cried François, starting up as if something had occurred to him; "what about the wolverene? It's a splendid skin — why not get it too?"

"True enough," replied Norman, "we had forgotten that. But the beast's gone to the bottom — how can we get at him?"

"Why, fish him up, to be sure," said François. "Let's splice one of these willow-poles to my ramrod, and I'll screw it into him, and draw him to the surface in a jiffy. Come!"

"We must get the canoe round, then," said Norman. "The bank's too steep for us to reach him without it."

"Of course," assented François, at the same time going towards the willows; "get you the canoe into the water, while I cut the sapling."

"Stay!" cried Basil, "I'll show you a shorter method. Marengo!"

As Basil said this, he rose to his feet and walked down to the bluff where they had shot the wolverene. All of them followed him as well as Marengo, who bounded triumphantly from side to side, knowing he was wanted for some important enterprise.

"Do you expect the dog to fetch him out?" inquired Norman.

"No," replied Basil; "only to help."

"How?"

"Wait a moment — you shall see."

Basil flung down his 'coon-skin cap, and stripped off his caribou jacket, then his striped cotton shirt then his under-shirt of fawn skin, and lastly his trousers, leggings, and moccasins. He was now as naked as Adam.

"I'll show you, cousin," said he, addressing himself to Norman, "how we take the water down there on the Mississippi."

So saying, he stepped forward to the edge of the bluff; and having carefully noted the spot where the wolverene had gone down, turned to the dog, and simply said, —

"Ho! Marengo! *Chez moi!*"

The dog answered with a whimper, and a look of

intelligence which showed that he understood his master's wish.

Basil again pointed to the lake, raised his arms over his head, placing his palms close together, launched himself out into the air, and shot down head foremost into the water.

Marengo, uttering a loud bay, sprang after so quickly that the plunges were almost simultaneous, and both master and dog were for some time hidden from view. The latter rose first, but it was a long time before Basil came to the surface — so long that Norman and the others were beginning to feel uneasy, and to regard the water with some anxiety. At length, however, a spot was seen to bubble, several yards from where he had gone down, and the black head of Basil appeared above the surface. It was seen that he held something in his teeth, and was pushing a heavy body before him, which they saw was the wolverene.

Marengo, who swam near, now seized hold of the object, and pulled it away from his master, who, calling to the dog to follow, struck out towards a point where the bank was low and shelving. In a few minutes Basil reached a landing-place, and shortly after Marengo arrived, towing the wolverene, which was speedily pulled out upon the bank, and carried, or rather dragged, by Norman and François to the camp. Lucien brought Basil's clothes, and all four once more assembled around the blazing fire.

There is not a more hideous-looking animal in America than the wolverene. His thick body and short, stout legs, his shaggy coat and bushy tail, but

above all, his long curving claws and dog-like jaws give him a formidable appearance. His gait is low and skulking, and his look bold and vicious. He walks somewhat like a bear, and his tracks are often mistaken for those of that animal. Indians and hunters, however, know the difference well. His hind feet are plantigrade, that is, they rest upon the ground from heel to toe; and his back curves like the segment of a circle. He is fierce and extremely voracious — quite as much so as the “glutton,” of which he is the American representative. No animal is more destructive to the small game, and he will also attack and devour the larger kinds when he can get hold of them; but as he is somewhat slow, he can only seize most of them by stratagem. It is a common belief that he lies in wait upon trees and rocks to seize the deer passing beneath. It has been also asserted that he places moss, such as these animals feed upon, under his perch, in order to entice them within reach; and it has been still further asserted, that the arctic foxes assist him in his plans, by hunting the deer towards the spot where he lies in wait, thus acting as his jackals. These assertions have been made more particularly about his European cousin, the “glutton,” about whom other stories are told equally strange — one of them, that he eats until scarce able to walk, and then draws his body through a narrow space between two trees, in order to relieve himself and get ready for a fresh meal. Buffon and others have given credence to these tales, upon the authority of one “Olaus Magnus,” whose name, from the circumstance, might be translated “great fibber

There is no doubt, however, that the glutton is one of the most sagacious of animals, and so, too, is the wolverene. The latter gives proof of this by many of his habits; one in particular fully illustrates his cunning. It is this. The marten trappers of the Hudson Bay territory set their traps in the snow, often extending over a line of fifty miles. These traps are constructed out of pieces of wood found near the spot, and are baited with the heads of partridges, or pieces of venison, of which the marten (*Mustela martes*) is very fond. As soon as the marten seizes the bait, a trigger is touched, and a heavy piece of wood, falling upon the animal, crushes or holds it fast. Now the wolverene *enters the trap from behind*, tears the back out of it before touching the bait, and thus avoids the falling log! Moreover, he will follow the tracks of the trapper from one to another, until he has destroyed the whole line. Should a marten happen to have been before him, and got caught in the trap, he rarely ever eats it, as he is not fond of its flesh. But he is not satisfied to leave it as he finds it. He usually digs it from under the log, tears it to pieces, and then buries it under the snow. The foxes, who are well aware of this habit, and who themselves greedily eat the marten, are frequently seen following him upon such excursions. They are not strong enough to take the log from off the trapped animal, but from their keen scent can soon find it where the other has buried it in the snow. In this way, instead of their being providers for the wolverene, the reverse is the true story. Notwithstanding, the wolverene will eat *them*, too, whenever he can get his claws

upon them; but as they are much swifter than he, this seldom happens. The foxes, however, are themselves taken in traps, or more commonly shot by guns set for the purpose, with the bait attached by a string to the trigger. Often the wolverene, finding the foxes dead or wounded, makes a meal of them before the hunter comes along to examine his traps and guns. The wolverene kills many of the foxes while young, and sometimes, on finding their burrow, widens it with his strong claws, and eats the whole family in their nests. Even young wolves sometimes become his prey. He lives, in fact, on very bad terms with both foxes and wolves, and often robs the latter of a fat deer which they may have just killed, and are preparing to dine upon. The beaver, however, is his favorite food, and but that these creatures can escape him by taking to the water — in which element he is not at all at home — he would soon exterminate their whole race. His great strength and acute scent enable him to overcome almost every wild creature of the forest or prairie. He is even said to be a full match for either the panther or the black bear.

The wolverene lives in clefts of rock, or in hollow trees, where such are to be found; but he is equally an inhabitant of the forest and the prairie. He is found in fertile districts, as well as in the most remote deserts. His range is extensive, but he is properly a denizen of the cold and snowy regions. In the southern parts of the United States he is no longer known, though it is certain that he once lived there when those countries were inhabited by the beaver. North of latitude 40° he ranges perhaps to the pole itself, as

traces of him have been found as far as man has yet penetrated. He is a solitary creature, and, like most predatory animals, a nocturnal prowler. The female brings forth two, sometimes three and four, at a birth. The cubs are of a cream color, and only when full-grown acquire that dark-brown hue, which in the extreme of winter often passes into black. The fur is not unlike that of the bear, but is shorter-haired, and of less value than a bear-skin. Notwithstanding, it is an article of trade with the Hudson's Bay Company, who procure many thousands of the skins annually.

The Canadian voyageurs call the wolverene "carcajou;" while among the Orkney and Scotch servants of the Hudson's Bay Company he is oftener known as the "quickhatch." It is supposed that both these names are corruptions of the Cree word *okee-coo-haw-gew* (the name of the wolverene among the Indians of that tribe). Many words from the same language have been adopted by both voyageurs and traders.

Those points in the natural history of the wolverene, that might be called *scientific*, were imparted by Lucien, while Norman furnished the information about its habits. Norman knew the animal as one of the most common in the "trade;" and in addition to what we have recorded, also related many adventures and stories current among the voyageurs, in which this creature figures in quite as fanciful a manner, as he does in the works either of Olaus Magnus, or Count de Buffon

CHAPTER XVI.

A GRAND SUNDAY DINNER.

AFTER remaining a day at their first camp on the lake, our voyageurs continued their journey. Their course lay a little to the west of north, as the edge of the lake trended in that direction. Their usual plan, as already stated, was to keep out in the lake far enough to shun the numerous indentations of the shore, yet not so far as to endanger their little craft when the wind was high. At night they always landed, either upon some point or on an island. Sometimes the wind blew "dead ahead," and then their day's journey would be only a few miles. When the wind was favorable they made good progress, using the skin of the wapiti for a sail. On one of these days they reckoned a distance of over forty miles from camp to camp.

It was their custom always to lie by on Sunday, for our young voyageurs were Christians. They had done so on their former expedition across the southern prairies, and they had found the practice to their advantage in a physical as well as a moral sense. They required the rest thus obtained; besides, a general cleaning up is necessary, at least once every week. Sunday was also a day of feasting with them. They had more time to devote to culinary opera

ion, and the *cuisine* of that day was always the most varied of the week. Any extra delicacy obtained by the rifle on previous days, was usually reserved for the Sunday's dinner.

On the first Sunday after entering Lake Winnipeg the "camp" chanced to be upon an island. It was a small island, of only a few acres in extent. It lay near the shore, and was well wooded over its whole surface with trees of many different kinds. Indeed, islands in a large lake usually have a great variety of trees, as the seeds of all those sorts that grow around the shores are carried thither by the waves, or in the crops of the numerous birds that flit over its waters. But as the island in question lay in a lake, whose shores exhibited such a varied geology, it was natural the vegetation of the island itself should be varied. And, in truth, it was so. There were upon it, down by the water's edge, willows and cottonwoods (*Populus angulata*), the characteristic *sylva* of the prairie land; there were birches and sugar-maples (*Acer saccharinum*); and upon some higher ground, near the centre, appeared several species that belonged more to the primitive formations that bounded the lake on the east. These were pines and spruces, the juniper, and tamarack or American larch (*Larix Americana*); and among others could be distinguished the dark cone-shaped forms of the red cedar trees. Among the low bushes and shrubs there were rose and wild raspberry; there were apple and plum trees, and whole thickets of the "Pembina" (*Viburnum oxycoccos*). There is, in fact, no part of the world where a greater variety of wild fruit has been found

indigenous than upon the banks of the Red River of the North, and this variety extended to the little island where our voyageurs had encamped.

The camp had been placed under a beautiful tree — the tacamahac, or balsam poplar (*Populus balsamifera*). This is one of the finest trees of America, and one of those that extend farthest north into the cold countries. In favorable situations it attains a height of one hundred and fifty feet, with a proportionate thickness of trunk; but it is oftener only fifty or eighty feet high. Its leaves are oval, and, when young, of a rich yellowish color, which changes to a bright green. The buds are very large, yellow, and covered with a varnish, which exhales a delightful fragrance, and gives to the tree its specific name.

It was near sunset on the afternoon of Saturday; the travellers had just finished their repast, and were reclining around a fire of red cedar, whose delicate smoke curled up among the pale-green leaves of the poplars. The fragrant smell of the burning wood, mixed with the aromatic odor of the balsam-tree, filled the air with a sweet perfume, and, almost without knowing why, our voyageurs felt a sense of pleasure stealing over them. The woods of the little island were not without their voices. The scream of the jay was heard, and his bright azure wing appeared now and then among the foliage. The scarlet plumage of the cardinal grosbeak flashed under the beams of the setting sun; and the trumpet-note of the ivory-billed woodpecker was heard near the centre of the island. An osprey was circling in the air, with his eye bent on the water below, watching for his finny prey; and a

pair of bald eagles (*Haliaetus leucocephalus*) were winging their way towards the adjacent mainland. Half-a-dozen turkey vultures (*Cathartes atratus*) were wheeling above the beach, where some object, fish or carrion, had been thrown up by the waves.

For some time the party remained silent, each contemplating the scene with feelings of pleasure. François, as usual, first broke the silence.

"I say, cook, what's for dinner to-morrow?"

It was to Lucien this speech was addressed. He was regarded as the *maître de cuisine*.

"Roast or boiled — which would you prefer?" asked the cook with a significant smile.

"Ha! ha! ha!" laughed François; "boiled, indeed! a pretty boil we could have in a tin cup, holding less than a pint. I wish we *could* have a boiled joint and a bowl of soup. I'd give something for it. I'm precious tired of this everlasting dry roast."

"You shall have both," rejoined Lucien, "for to-morrow's dinner. I promise you both the soup and the joint."

Again François laughed incredulously.

"Do you mean to make soup in your shoe, Luce?"

"No; but I shall make it in this."

And Lucien held up a vessel somewhat like a water-pail, which the day before he had himself made out of birch-bark.

"Well," replied François, "I know you have got a vessel that holds water, but cold water ain't soup; and if you can boil water in that vessel, I'll believe you to be a conjurer. I know you can do some curious things with your chemical mixtures; but that you can't do

I'm sure. Why, man, the bottom would be barned out of your bucket before the water got blood-warm. Soup, indeed!"

"Never mind, Frank, you shall see. You're only like the rest of mankind — incredulous about every thing they can't comprehend. If you'll take your hook and line, and catch some fish, I promise to give you a dinner to-morrow, with all the regular courses — soup, fish, boiled, roast, and dessert, too! I'm satisfied I can do all that."

"*Parbleu!* brother, you should have been cook to Lucullus. Well, I'll catch the fish for you."

So saying, François took a fish-hook and line out of his pouch, and fixing a large grasshopper upon the hook, stepped forward to the edge of the water, and cast it in. The float was soon seen to bob and then sink, and François jerked his hook ashore with a small and very pretty fish upon it of a silver hue, with which the lake and the waters running into it abound. Lucien told him it was a fish of the genus *Hyodon*. He also advised him to bait with a worm, and let his bait sink to the bottom, and he might catch a sturgeon, which would be a larger fish.

"How do you know there are sturgeon in the lake?" inquired François.

"I am pretty sure of that," answered the naturalist; "the sturgeon (*Acipenser*) is found all round the world in the northern temperate zone — both in its seas and fresh waters; although, when you go farther south into the warmer climate, no sturgeons exist. I am sure there are some here, perhaps more than one species. Sink your bait, for the sturgeon is a toothless fish, and feeds upon soft substances at the bottom."

François followed the advice of his brother, and in a few minutes he had a "nibble," and drew up and landed a very large fish, full three feet in length. Lucien at once pronounced it a sturgeon, but of a species he had not before seen. It was the *Acipenser carbonarius*, a curious sort of fish found in these waters. It did not look like a fish that would be pleasant eating therefore François again took to bobbing for the silver fish (*Hyodons*), which, though small, he knew to be excellent when broiled.

"Come," said Basil, "I must furnish my quota to this famous dinner that is to be. Let me see what there is on the island in the way of game;" and shouldering his rifle, he walked off among the trees.

"And I," said Norman, "am not going to eat the produce of other people's labor without contributing my share."

So the young trader took up his gun and went off in a different direction.

"Good!" exclaimed Lucien, "we are likely to have plenty of meat for the dinner. I must see about the vegetables;" and taking with him his new-made vessel, Lucien sauntered off along the shore of the islet. François alone remained by the camp, and continued his fishing. Let us follow the plant-hunter, and learn a lesson of practical botany.

Lucien had not gone far, when he came to what appeared to be a mere sedge growing in the water. The stalks or culms of this sedge were full eight feet high, with smooth leaves, an inch broad, nearly a yard in length, and of a light green color. At the top of each stalk was a large panicle of seeds, somewhat resem-

bling a head of oats. The plant itself was the famous wild rice (*Zizania aquatica*), so much prized by the Indians as an article of food, and also the favorite of many wild birds, especially the reed-bird or rice-bunting. The grain of the zizania was not yet ripe, but the ears were tolerably well filled, and Lucien saw that it would do for his purpose. He therefore waded in, and stripped off into his vessel as much as he wanted.

"I am safe for rice-soup, at all events," soliloquized he, "but I think I can do still better;" and he continued on around the shore, and shortly after struck into some heavy timber that grew in a damp, rich soil. He had walked about a hundred yards farther, when he was seen to stoop and examine some object on the ground.

"It ought to be found here," he muttered to himself; "this is the very soil for it, — yes, here we have it!"

The object over which he was stooping was a plant, but its leaves appeared shrivelled, or rather quite withered away. The upper part of a bulbous root, however, was just visible above the surface. It was a bulb of the wild leek (*Allium tricoccum*). The leaves, when young, are about six inches in length, of a flat shape, and often three inches broad; but, strange to say, they shrivel or die off very early in the season, — even before the plant flowers, and then it is difficult to find the bulb.

Lucien, however, had sharp eyes for such things; and in a short while he had rooted out several bulbs as large as pigeons' eggs, and deposited them in his birchen vessel. He now turned to go back to camp, satisfied with what he had obtained. He had the rice

to give consistency to his soup, and the leek-roots to flavor it with. That would be enough.

As he was walking over a piece of boggy ground his eye was attracted to a singular plant, whose tall stem rose high above the grass. It was full eight feet in height, and at its top there was an umbel of conspicuous white flowers. Its leaves were large, lobed, and toothed, and the stem itself was over an inch in diameter, with furrows running longitudinally. Lucien had never seen the plant before, although he had often heard accounts of it, and he at once recognized it from its botanical description. It was the celebrated "cow parsnip" (*Heracleum lanatum*). Its stem was jointed and hollow, and Lucien had heard that the Indians called it in their language "flute-stem," as they often used it to make their rude musical instruments from, and also a sort of whistle or "call," by which they were enabled to imitate and decoy several kinds of deer. But there was another use to which the plant was put, of which the naturalist was not aware. Norman, who had been wandering about, came up at this moment, and seeing Lucien standing by the plant, uttered a joyful "Hulloh!"

"Well," inquired Lucien, "what pleases you, coz?"

"Why, the flute-stem, of course. You talked of making a soup. It will help you, I fancy."

"How?" demanded Lucien.

"Why, the young stems are good eating, and the roots, if you will; but the young shoots are better. Both Indians and voyageurs eat them in soup, and are fond of them. It's a famous thing, I assure you."

"Let us gather some, then," said Lucien; and

the cousins commenced cutting off such stems as were still young and tender. As soon as they had obtained enough, they took their way back to the camp. Basil had already arrived with a fine *prairie hen* (*Tetrao cupido*) which he had shot, and Sandy had brought back a squirrel; so that, with François' fish, of which a sufficient number had been caught, Lucien was likely to be able to keep his promise about the dinner.

François, however, could not yet comprehend how the soup was to be boiled in a wooden pot; and, indeed, Basil was unable to guess. Norman, however, knew well enough, for he had travelled through the country of the Assinoboil Indians, who take their name from this very thing. He had also witnessed the operation performed by Crees, Chippewas, and even voyageurs, where metal or earthen pots could not be obtained.

On the next day the mystery was cleared up to Basil and François. Lucien first collected a number of stones — about as large as paving-stones. He chose such as were hard and smooth. These he flung into the cinders, where they soon became red-hot. The water and meat were now put into the bark pot, and then, one stone after another, — each being taken out as it got cooled, — until the water came to a fierce boil. The rice and other ingredients were added at the proper time, and in a short while an excellent soup was made. So much, then, for the soup, and the boiled dishes with vegetables. The roast, of course, was easily made ready upon green-wood spits, and the "game" was cooked in a similar way. The fish were

broiled upon the red cinders, and eaten, as is usual, after the soup. There were no puddings or pies, though, no doubt, Lucien could have made such had they been wanted. In their place there was an excellent service of fruit. There were strawberries and raspberries, one sort of which, found wild in this region, is of a most delicious flavor. There were gooseberries and currants; but the most delicious fruit, and that which François liked best, was a small berry of a dark blue color, not unlike the huckleberry, but much sweeter and of higher flavor. It grows on a low bush or shrub with ovate leaves; and this bush when it blossoms is so covered with beautiful white flowers, that neither leaves nor branches can be seen. There are no less than four varieties of it known, two of which attain to the height of twenty feet or more. The French Canadians call it "le poire," but in most parts of America it is known as the "service-berry," although several other names are given to it in different districts. Lucien informed his companions, while they were crushing its sweet, purplish fruit between their teeth, that its botanical name is *Ame-lanchier*.

"Now," remarked François, "if we only had a cup of coffee and a glass of wine, we might say that we had dined in fashionable style."

"I think," replied Lucien, "we are better without the wine, and as for the other, I cannot give you that, but I fancy I can provide you with a cup of tea, if you only allow me a little time."

"Tea!" screamed François; "why, there's not a leaf of tea nearer than China; and for the sugar, not a grain within hundreds of miles!"

"Come, Frank," said Lucien, "nature has not been so ungenerous here, — even in such luxuries as tea and sugar. Look yonder! You see those large trees with the dark-colored trunks. What are they?"

"Sugar-maples," replied François.

"Well," said Lucien, "I think even at this late season we might contrive to extract sap enough from them to sweeten a cup of tea. You may try, while I go in search of the tea-plant."

"Upon my word, Luce, you are equal to a wholesale grocery. Very well. Come, Basil, we'll tap the maples; let the captain go with Luce."

The boys, separating into pairs, walked off in different directions. Lucien and his companion soon lighted upon the object of their search in the same wet bottom where they had procured the *Heracleum*. It was a branching shrub, not over two feet in height, with small leaves of a deep green color above, but whitish and woolly underneath. It is a plant well known throughout most of the Hudson's Bay territory by the name of "Labrador tea-plant;" and is so called because the Canadian voyageurs, and other travellers through these northern districts, often drink it as tea. It is one of the *Ericaceæ*, or heath tribe, of the genus *Ledum* — though it is not a true heath, as, strange to say, no true heath is found upon the continent of America.

There are two kinds of it known, — the "narrow-leaved" and "broad-leaved;" and the former makes the best tea. But the pretty white flowers of the plant are better for the purpose than the leaves of either variety; and these it was that were now gath-

ered by Lucien and Norman. They require to be dried before the decoction is made ; but this can be done in a short time over a fire ; and so in a short time it was done, Norman having parched them upon heated stones. Meanwhile Basil and François had obtained the sugar-water, and Lucien having washed his soup-kettle clean, and *olée* *licre* made his boiling stones red-hot, prepared the beverage ; and then it was served out in the tin cup, and all partook of it. Norman had drank the Labrador tea before, and was rather fond of it, but his Southern cousins did not much relish it. Its peculiar flavor, which somewhat resembles rhubarb, was not at all to the liking of François. All, however, admitted that it produced a cheering effect upon their spirits ; and, after drinking it, they felt in that peculiarly happy state of mind which one experiences after a cup of the real "Bohea."

CHAPTER XVII.

THE MARMOTS OF AMERICA.

FROM such a luxurious dinner you may suppose that our young voyageurs lived in prime style. But it was not always so. They had their fasts as well as feasts. Sometimes for days they had nothing to eat but the jerked deer-meat. No bread — no beer — no coffee, nothing but water — dry venison and water. Of course, this is food enough for a hungry man; but it can hardly be called luxurious living. Now and then a wild duck or a goose, or perhaps a young swan, was shot; and this change in their diet was very agreeable. Fish were caught only upon occasions, for often these capricious creatures refused François' bait, however temptingly offered. After three weeks' coasting the Lake, they reached the Saskatchewan, and turning up that stream, now travelled in a due westerly direction. At the Grand Rapids, near the mouth of this river, they were obliged to make a portage of no less than three miles, but the magnificent view of these "Rapids" fully repaid them for the toil they underwent in passing them.

The Saskatchewan is one of the largest rivers in America, being full 1600 miles in length from its source in the Rocky Mountains to its *débouchure*, under the name of the "Nelson River," in Hudson's

Bay. For some distance above Lake Winnipeg, the country upon its banks is well wooded. Farther up, the river runs through dry sandy prairies that extend westward to the foot-hills of the Rocky Mountains. Many of these prairies may be properly called "deserts." They contain lakes as salt as the ocean itself, and vast tracts—hundreds of square miles in extent—where not a drop of water is to be met with. But the route of our voyageurs did not lie over these prairies. It was their intention, after reaching Cumberland House, to turn again in a northerly direction.

One evening, when within two days' journey of the Fort, they had encamped upon the bank of the Saskatchewan. They had chosen a beautiful spot for their camp, where the country, swelling into rounded hills, was prettily interspersed with bushy copses of *Amelanchiers*, and *Rosa blanda* whose pale red flowers were conspicuous among the green leaves, and filled the air with a sweet fragrance, that was wafted to our voyageurs upon the sunny breeze. The ground was covered with a grassy sward, enamelled by the pink flowers of the *Cleome*, and the deeper red blossoms of the beautiful wind-flower (*Anemone*). Upon that day our travellers had not succeeded in killing any game, and their dinner was likely to consist of nothing better than dry venison scorched over the coals. As they had been travelling all the morning against a sharp current, and, of course, had taken turn about at the paddles, they all felt fatigued, and none of them was inclined to go in search of game. They had flung themselves down around the fire, and were waiting until the venison should be broiled for dinner

The camp had been placed at the foot of a tolerably steep hill, that rose near the banks of the river. There was another and higher hill facing it, the whole front of which could be seen by our travellers as they sat around their fire. While glancing their eyes along its declivity, they noticed a number of small protuberances or mounds standing within a few feet of each other. Each of them was about a foot in height, and of the form of a truncated cone — that is, a cone with its top cut off, or beaten down.

“What are they?” inquired François.

“I fancy,” answered Lucien, “they are marmot-houses.”

“They are,” affirmed Norman; “there are plenty of them in this country.”

“O, marmots!” said François. “Prairie dogs, you mean? — the same we met with on the southern prairies?”

“I think not,” replied Norman: “I think the prairie-dogs are a different sort. Are they not, cousin Luce?”

“Yes, yes,” answered the naturalist; “these must be a different species. There are too few of them to be the houses of prairie-dogs. The ‘dogs’ live in large settlements, many hundreds of them in one place; besides, their domes are somewhat different in appearance from these. The mounds of the prairie-dogs have a hole in the top or on one side. These, you see, have not. The hole is in the ground beside them, and the hill is in front, made by the earth taken out of the burrow, just as you have seen it at the entrance of a rat’s hole. They are marmots, I have no

doubt, but of a different species from the prairie-dog marmots."

"Are there not many kinds of marmots in America? I have heard so," said François.

This question was of course addressed to Lucien.

"Yes," answered he. "The *fauna* of North America is peculiarly rich in species of these singular animals. There are thirteen kinds of them, well known to naturalists; and there are even some varieties in these thirteen kinds that might almost be considered distinct species. I have no doubt, moreover, there are yet other species which have not been described. Perhaps, altogether, there are not less than twenty different kinds of marmots in North America. As only one or two species are found in the settled territories of the United States, it was supposed, until lately, that there were no others. Latterly the naturalists of North America have been very active in their researches, and no genus of animals has rewarded them so well as the marmots—unless, perhaps, it may be the squirrels. Almost every year a new species of one or the other of these has been found—mostly inhabiting the vast wilderness territories that lie between the Mississippi and the Pacific Ocean.

"As regards the marmots, the *closet-naturalists*, as usual, have rendered their history as complicated and difficult to be understood as possible. They have divided them into several genera, because one kind happens to have a larger tubercle upon its tooth than another, or a little more curving in its claws, or a shorter tail. It is true that in the thirteen species

some differ considerably from the others in size, color and other respects. Yet, for all that, there is such an identity, if I may so express it, about the mode of life, the food, the appearance, and habits of all the thirteen, that I think it is both absurd and ill-judged to render the study of them more difficult, by thus dividing them into so many genera. They are all *marmots*, that is what they are; and why confound the study of them by calling them *spermophiles* and *arctomys*, and such-like hard names?"

"I quite agree with you, Luce," said the hunter, Basil, who, although not averse to the study of natural history (all hunters, I believe, love it more or less), had no great opinion of the closet-naturalists and "babbler about teeth," as he contemptuously called them.

"When a family of animals," continued Lucien, "contains a great many species, and these species differ widely from each other, I admit that it may then be convenient and useful to class them into genera, and sometimes even sub-genera; but, on the other hand, when there are only a few species, and these closely allied to each other, I think nothing can be more ridiculous than this dividing and subdividing, and giving such unpronounceable names to them. It is this that renders the study difficult, because even the committing to memory such a string of unmeaning phrases is of itself no easy task. Take, for example, such a phrase as '*Arctomys spermophilus Richardsonii*,' which, although nearly a yard long, means simply the 'tawny marmot.' Do not mistake me," con-

tinued Lucien; "I do not object to the use of the Greek or Latin phraseology used in such cases. Some universal language must be adopted, so that the naturalists of different countries may understand each other. But then this language should, when translated, describe the animal, by giving some of its characteristics, and thus have a meaning. On the contrary, it usually, when put into plain English, gives us only the name — often a clumsy and unpronounceable German one — of some obscure friend of the author, or, as is not unfrequently the case, some lordly patron, for whom your closet-naturalist entertains a flunkeyish regard, and avails himself of this means of making it known to his Mæcenæ. In my opinion," continued Lucien, warming with the enthusiasm of a true naturalist, "it is a most impertinent interference with the beautiful things of Nature — her birds and quadrupeds, her plants and flowers — to couple them with the names of kings, princes, lords, and lordlings, who chance to be the local gods of some closet-naturalist. It is these catalogue-makers who generally multiply synonymes so as to render science unintelligible. Sitting in their easy-chairs they know little or nothing of the habits of the animals about which they write; and therefore, to write something original, they multiply names, and give measurements *ad infinitum*, and this among them constitutes a science. I do not, of course, include among these the man whose name is given — Richardson. No; he was a true naturalist, who travelled and underwent hardships to earn the high name which he bears and so well deserves."

"Brother Luce," said Basil, "you grow excited upon this subject, and that is something of a rarity to see. I agree with you, however, in all you have said. Previous to our leaving home I read several books upon natural history. They were the works of distinguished closet-naturalists. Well, I found that all the information they contained about the animals of these northern regions—at least, all that could be called *information*—I had read somewhere before. After thinking for a while I recollected where. It was in the pages of the traveller Hearne—a man who, among these scientific gentlemen, is considered only in the light of a rude traveller, and not deserving the name of naturalist. Hearne journeyed to the Arctic Sea so early as the year 1771; and to him the world is indebted for their first knowledge of the fact that there was no strait across the continent south of the seventieth parallel of latitude."

"Yes," said Lucien, "he was sent out by the Hudson's Bay Company, perhaps more scantily furnished than any explorer ever was before. He underwent the most dreadful hardships and perils, and has left behind him an account of the inhabitants and natural history of these parts, so full and so truthful, that it has not only stood the test of subsequent observation, but the closet-naturalists have added but little to it ever since. Most of them have been satisfied with giving just what poor Hearne had gathered—as, in fact, they knew nothing more, and could not, therefore, add any thing. Some of them have quoted his own words, and given him the credit of his vast labor; while others have endeavored to pass off Hearne's

knowledge as their own, by giving a slightly altered paraphrase of his language. This sort of thing," said Lucien, "makes me indignant."

"It's downright mean," interposed Norman. "All of us in this country have heard of Hearne. He was a right hardy traveller, and no mistake about it."

"Well, then," said Lucien, cooling down, and resuming the subject of the marmots, "these little animals seem to form a link between the squirrels and rabbits. On the side of the squirrels they very naturally join on, if I may use the expression, to the ground-squirrel, and some of them differ but little in their habits from many of the latter. Other species, again, are more allied to the rabbits, and less like the squirrels; and there are two or three kinds that I should say — using a Yankee expression — have a 'sprinkling' of the rat in them. Some, as the ground-hog, or wood-chuck of the United States, are as large as rabbits, while others, as the leopard-marmot, are not bigger than Norway rats. Some species have cheek-pouches, in which they can carry a large quantity of seeds, nuts, and roots, when they wish to hoard them up for future use. These are the spermophiles, and some species of these have more capacious pouches than others. Their food differs somewhat, perhaps according to the circumstances in which they may be placed. In all cases it is vegetable. Some, as the prairie-dogs, live upon grasses, while others subsist chiefly upon seeds, berries, and leaves. It was long supposed that the marmots, like the squirrels, laid up stores against the winter. I believe this is not the case with any of the different

species. I know for certain that many of them pass the winter in a state of torpidity, and of course require no provisions, as they eat nothing during that season. In this we observe one of those cases in which Nature so beautifully adapts a creature to its circumstances. In the countries where many of the marmots are found, so severe are the winters, and so barren the soil, that it would be impossible for these creatures to get a morsel of food for many long months. During this period, therefore, Nature suspends her functions, by putting them into a deep, and, for aught we know to the contrary, a pleasant sleep. It is only when the snow melts, under the vernal sun, and the green blades of grass and the spring flowers array themselves on the surface of the earth, that the little marmots make their appearance again. Then the warm air, penetrating into their subterranean abodes, admonishes them to awake from their protracted slumber, and come forth to the enjoyment of their summer life. These animals may be said, therefore, to have no winter. Their life is altogether a season of summer and sunshine.

“Some of the marmots,” continued Lucien, “live in large communities, as the prairie-dogs; others in smaller tribes, while still other species lead a solitary life, going only in pairs, or at most in families. Nearly all of them are burrowing animals, though there are one or two species that are satisfied with a cleft in the rock, or a hole among loose stones for their nests. Some of them are tree-climbers, but it is supposed they only ascend trees in search of food, as they do not make their dwellings there. Many of the species are very prolific, the females bringing forth eight, and even ten young at a birth.

"The marmots are extremely shy and watchful creatures. Before going to feed they usually reconnoitre the ground from the tops of their little mounds. Some species do not have such mounds, and for this purpose ascend any little hillock that may be near. Nearly all have the curious habit of placing sentries to watch while the rest are feeding. These sentries station themselves on some commanding point, and when they see an enemy approaching give warning to the others by a peculiar cry. In several of the species this cry resembles the syllables 'seek-seek' repeated with a hiss. Others bark like 'toy-dogs,' while still other kinds utter a whistling noise, from which one species derives its trivial name of 'whistler' among the traders, and is the 'siffleur' of the Canadian voyageurs.

"The 'whistler's' call of alarm can be heard at a great distance; and when uttered by the sentinel is repeated by all the others as far as the troop extends.

"The marmots are eaten both by Indians and white hunters. Sometimes they are captured by pouring water into their burrows; but this method only succeeds in early spring, when the animals awake out of their torpid state, and the ground is still frozen hard enough to prevent the water from filtering away. They are sometimes shot with guns; but, unless killed upon the spot, they will escape to their burrows, and tumble in before the hunter can lay his hands upon them."

CHAPTER XVIII.

THE BLAIREAU, THE "TAWNIES," AND THE
"LEOPARDS."

PERHAPS Lucien would have carried his account of the marmots still farther — for he had not told half what he knew of their habits — but he was at that moment interrupted by the marmots themselves. Several of them appeared at the mouths of their holes; and, after looking out and reconnoitring for some moments, became bolder, and ran up to the tops of their mounds, and began to scatter along the little beaten paths that led from one to the other. In a short while as many as a dozen could be seen moving about, jerking their tails, and at intervals uttering their "seek-seek."

Our voyageurs saw that there were two kinds of them, entirely different in color, size, and other respects. The larger ones were of a grayish yellow above, with an orange tint upon the throat and belly. These were the "tawny marmots," called sometimes "ground-squirrels," and by the voyageurs, "siffleurs," or "whistlers." The other species seen were the most beautiful of all the marmots. They were very little smaller than the tawny marmots; but their tails were larger and more slender, which rendered their appearance more graceful. Their chief beauty, how

ever, lay in their colors and markings. They were striped from the nose to the rump with bands of yellow and chocolate color, which alternated with each other, while the chocolate bands were themselves variegated by rows of yellow spots regularly placed. These markings gave the animals that peculiar appearance so well known as characterizing the skin of the leopard, hence the name of these little creatures was "leopard marmots."

It was plain from their actions that both kinds were "at home" among the mounds, and that both had their burrows there. This was the fact, and Norman told his companion that the two kinds are always found together, not living in the same houses, but only as neighbors in the same "settlement." The burrows of the "leopard" have much smaller entrances than those of their "tawny kin," and run down perpendicularly to a greater depth before branching off in a horizontal direction. A straight stick may be thrust down one of these full five feet before reaching an "elbow." The holes of the tawny marmots, on the contrary, branch off near the surface, and are not so deep under ground. This guides us to the explanation of a singular fact — which is, that the "tawnies" make their appearance three weeks earlier in spring than the "leopards," in consequence of the heat of the sun reaching them sooner, and waking them out of their torpid sleep.

While these explanations were passing among the boys, the marmots had come out, to the number of a score, and were carrying on their gambols along the declivity of the hill. They were at too great a distance

to heed the movements of the travellers by the camp fire. Besides, a considerable valley lay between them and the camp, which, as they believed, rendered their position secure. They were not at such a distance but that many of their movements could be clearly made out by the boys, who after a while noticed that several furious battles were being fought among them. It was not the "tawnies" against the others, but the males of each kind in single combats with one another. They fought like little cats, exhibiting the highest degree of boldness and fury; but it was noticed that in these conflicts the leopards were far more active and spiteful than their kinsmen. In observing them through his glass Lucien noticed that they frequently seized each other by the tails, and he further noticed that several of them had their tails much shorter than the rest. Norman said that these had been bitten off in their battles; and, moreover, that it was a rare thing to find among the males, or "bucks," as he called them, one that had a perfect tail!

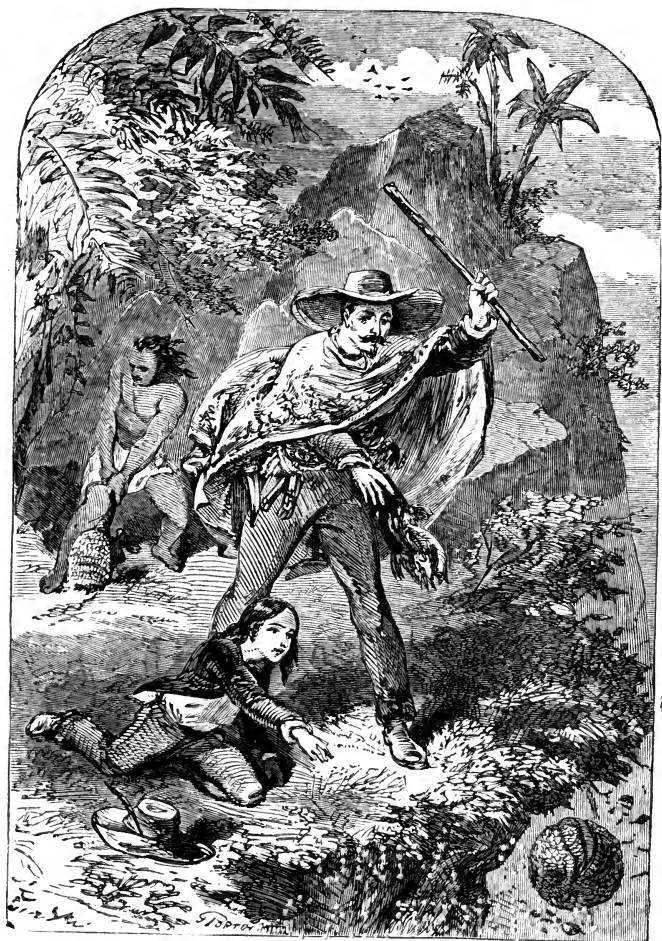
While these observations were being made, the attention of our party was attracted to a strange animal that was seen slowly crawling around the hill. It was a creature about as big as an ordinary setter dog, but much thicker in the body, shorter in the legs, and shaggier in the coat. Its head was flat, and its ears short and rounded. Its hair was long, rough, and of a mottled hoary gray color, but dark-brown upon the legs and tail. The latter, though covered with long hair, was short, and carried upright; and upon the broad feet of the animal could be seen long and strong curving claws. Its snout was sharp as that of

a greyhound — though not so prettily formed — and a white stripe, passing from its very tip over the crown, and bordered by two darker bands, gave a singular expression to the animal's countenance. It was altogether, both in form and feature, a strange and vicious-looking creature. Norman recognized it at once as the "blaireau," or American badger. The others had never seen such a creature before — as it is not an inhabitant of the South, nor of any part of the settled portion of the United States, for the animal there sometimes called a badger, is the ground-hog, or Maryland marmot (*Arctomys monax*). Indeed, it was for a long time believed that no true badger inhabited the continent of America. Now, however, it is known that such exists, although it is of a species distinct from the badger of Europe. It is less in size than the latter, and its fur is longer, finer, and lighter in color; but it is also more voracious in its habits, preying constantly upon mice, marmots, and other small animals, and feeding upon carcasses, whenever it chances to meet with such. It is an inhabitant of the sandy and barren districts, where it burrows the earth in such a manner that horses frequently sink and snap their legs in the hollow ground made by it. These are not always the holes scraped out for its own residence, but the burrows of the marmots, which the blaireau has enlarged, so that it may enter and prey upon them. In this way the creature obtains most of its food, but as the marmots lie torpid during the winter months, and the ground above them is frozen as hard as a rock, it is then impossible for the blaireau to effect an entrance. At this season it would undoubtedly

starve had not Nature provided against such a result, by giving it the power of sleeping throughout the winter months as well as the marmots themselves, which it does. As soon as it wakes up and comes abroad, it begins its campaign against these little creatures; and it prefers, above all others, the "tawnies," and the beautiful "leopards," both of which it persecutes incessantly.

The badger when first seen was creeping along with its belly almost dragging the ground, and its long snout projected horizontally in the direction of the marmot "village." It was evidently meditating a surprise of the inhabitants. Now and then it would stop, like a pointer dog when close to a partridge, reconnoitre a moment, and then go on again. Its design appeared to be to get between the marmots and their burrows, intercept some of them, and get a hold of them without the trouble of digging them up — although that would be no great affair to it, for so strong are its fore-arms and claws that in loose soil it can make its way under the ground as fast as a mole.

Slowly and cautiously it stole along, its hind-feet resting all their length upon the ground, its hideous snout thrown forward, and its eyes glaring with a voracious and hungry expression. It had got within fifty paces of the marmots, and would, no doubt, have succeeded in cutting off the retreat of some of them; but at that moment a burrowing owl (*Strix cunicularia*), that had been perched upon one of the mounds, rose up and commenced hovering in circles above the intruder. This drew the attention of the marmot sentries to their well-known enemy, and their warning



cry was followed by a general scamper of both tawnies and leopards towards their respective burrows.

The blaireau, seeing that further concealment was no longer of any use, raised himself higher upon his limbs, and sprang forward in pursuit. He was too late, however, as the marmots had all got into their holes, and their angry "seek-seek" was heard proceeding from various quarters out of the bowels of the earth. The blaireau only hesitated long enough to select one of the burrows into which he was sure a marmot had entered; and then, setting himself to his work, he commenced throwing out the mould like a terrier. In a few seconds he was half buried, and his hind-quarters and tail alone remained above ground. He would soon have disappeared entirely, but at that moment the boys, directed and headed by Norman, ran up the hill, and, seizing him by the tail, endeavored to jerk him back. That, however, was a task which they could not accomplish; for first one and then another, and then Basil and Norman—who were both strong boys—pulled with all their might, and could not move him. Norman cautioned them against letting him go, as in a moment's time he would burrow beyond their reach. So they held on until François had got his gun ready. This the latter soon did, and a load of small shot was fired into the blaireau's hips, which, although it did not quite kill him, caused him to back out of the hole, and brought him into the clutches of Marengo. A desperate struggle ensued, which ended by the bloodhound doubling his vast black muzzle upon the throat of the blaireau, and choking him to death in less than a dozen seconds.

and then his hide — the only part which was deemed of any value — was taken off and carried to the camp. The carcass was left upon the face of the hill, and the red shining object was soon espied by the buzzards and turkey vultures, so that in a few minutes' time several of these filthy birds were seen hovering around, and alighting upon the hill.

But this was no new sight to our young voyageurs, and soon ceased to be noticed by them. Another bird, of a different kind, for a short time engaged their attention. It was a large hawk, which Lucien, as soon as he saw it, pronounced to be one of the kind known as buzzards (*Buteo*). Of these there are several species in North America, but it is not to be supposed that there is any resemblance between them and the buzzards just mentioned as having alighted by the carcass of the blaireau. The latter, commonly called "turkey buzzards," are true vultures, and feed mostly, though not exclusively, on carrion; while the "hawk buzzards" have all the appearance and general habits of the rest of the falcon tribe.

The one in question, Lucien said, was the "marsh-hawk," sometimes also called the "hen-harrier" (*Falco uliginosus*). Norman stated that it was known among the Indians of these parts as the "snake-bird," because it preys upon a species of small green snake that is common on the plains of the Saskatchewan, and of which it is fonder than of any other food.

The voyageurs were not long in having evidence of the appropriateness of the Indian appellation; for these people, like other savages, have the good habit of giving names that express some quality or charac-

teristic of the thing itself. The bird in question was on the wing, and from its movements evidently searching for game. It sailed in easy circlings near the surface, *quartering* the ground like a pointer dog. It flew so lightly that its wings were not seen to move, and throughout all its wheelings and turnings it appeared to be carried onwards or upwards by the power of mere volition. Once or twice its course brought it directly over the camp, and François had got hold of his gun, with the intention of bringing it down, but on each occasion it perceived his motions; and, soaring up like a paper-kite until out of reach, it passed over the camp, and then sank down again upon the other side, and continued its "quarterings" as before. For nearly half an hour it went on manœuvring in this way, when all at once it was seen to make a sudden turning in the air as it fixed its eyes upon some object in the grass. The next moment it glided diagonally towards the earth, and poising itself for a moment above the surface, rose again with a small green-colored snake struggling in its talons. After ascending to some height, it directed its flight towards a clump of trees, and was soon lost to the view of our travellers.

Lucien now pointed out to his companions a characteristic of the hawk and buzzard tribe, by which these birds can always be distinguished from the true falcon. That peculiarity lay in the manner of seizing their prey. The former skim forward upon it sideways — that is, in a horizontal or diagonal direction, and pick it up in passing; while the true falcons — as the merlin, the peregrine, the gerfalcon, and the

great eagle falcons — shoot down upon their prey *perpendicularly* like an arrow, or a piece of falling lead.

He pointed out, moreover, how the structure of the different kinds of preying birds, such as the size and form of the wings and tail, as well as other parts, were in each kind adapted to its peculiar mode of pursuing its prey ; and then there arose a discussion as to whether this adaptation should be considered a *cause* or an *effect*. Lucien succeeded in convincing his companions that the structure was the effect and not the cause of the habit, for the young naturalist was a firm believer in the changing and progressive **system of nature.**

CHAPTER XIX.

AN ODD SORT OF DECOY-DUCK.

Two days after the adventure with the blaireau, the young voyageurs arrived at Cumberland House, one of the most celebrated posts of the Hudson's Bay Company. The chief factor, who resided there, was a friend of Norman's father, and of course the youths were received with the warmest hospitality, and entertained during their stay in the best manner the place afforded. They did not make a long stay, however, as they wished to complete their journey before the winter should set in, when canoe travelling would become impossible. During winter, not only the lakes, but the most rapid rivers of these northern regions, become frozen up, and remain so for many months. Nearly the whole surface of the earth is buried under deep snow, and travelling can only be done with snow shoes, or with sledges drawn by dogs. These are the modes practised by the Indians, the Esquimaux, and the few white traders and trappers who have occasion in winter to pass from one point to another of that icy and desolate region.

Travelling under such circumstances is not only difficult and laborious, but is extremely perilous. Food cannot always be obtained — supplies fall short, or become exhausted — game is scarce, or cannot be

found at all, as at that season many of the quadrupeds and most of the birds have forsaken the country, and migrated to the South — and whole parties of travellers — even Indians, who can eat any thing, living or dead, roast or raw — often perish from hunger.

Our travellers were well acquainted with these facts ; and being anxious, therefore, to get to the end of their journey before the winter should come down upon them, made all haste to proceed. Of course they obtained a new “outfit” at the Fort ; but they took with them only such articles as were absolutely necessary, as they had many portages to make before they could reach the waters of the Mackenzie River. As it required two of the party to carry the canoe, with a few little things besides, all the baggage was comprised in such loads as the others could manage ; and of course that was not a great deal, for François was but a lad, and Lucien was far from being in robust health. A light axe, a few cooking utensils, with a small stock of provisions, and of course their guns, formed the bulk of their loads.

After leaving the Fort they kept for several days’ journey up the Saskatchewan. They then took leave of that river, and ascended a small stream that emptied into it from the North. Making their first portage over a “divide,” they reached another small stream that ran in quite a different direction, emptying itself into one of the branches of the Mississippi, or Churchill River. Following this in a north-westerly course, and making numerous other portages, they reached Lake La Crosse, and afterwards, in succession, Lakes Clear Buffalo, and Methy. A long “portage” from

the last-mentioned lake brought them to the head of a stream known as the "Clear Water;" and, launching their canoe upon this, they floated down to its mouth, and entered the main stream of the Elk, or Athabasca, one of the most beautiful rivers of America. They were now in reality upon the waters of the Mackenzie itself, for the Elk, after passing through the Athabasca Lake, takes from thence the name of Slave River and having traversed Great Slave Lake, becomes the Mackenzie — under which name it continues on to the Arctic Ocean. Having got, therefore, upon the main head-water of the stream which they intended to traverse, they floated along in their canoe with light hearts and high hopes. It is true they had yet fifteen hundred miles to travel, but they believed that it was all down-hill work now; and as they had still nearly two months of summer before them, they doubted not being able to accomplish the voyage in good time.

On they floated down stream, feasting their eyes as they went — for the scenery of the Elk valley is of a most picturesque and pleasing character; and the broad bosom of the stream itself, studded with wooded islands, looked to our travellers more like a continuation of lakes than a running river. Now they glided along without using an oar, borne onward by the current; then they would take a spell at the paddles, while the beautiful Canadian boat-song could be heard as it came from the tiny craft, and the appropriate chorus "Row, brothers, row!" echoed from the adjacent shores. No part of their journey was more pleasant than while descending the romantic Elk.

They found plenty of fresh provisions, both in the

stream itself and on its banks. They caught salmon in the water, and the silver-colored hyodon, known among the voyageurs by the name of "Doré." They shot both ducks and geese, and roast-duck or goose had become an every-day dinner with them. Of the geese there were several species. There were "snow-geese," so called from their beautiful white plumage; and "laughing geese," that derive their name from the circumstance that their call resembles the laugh of a man. The Indians decoy these by striking their open hand repeatedly over the mouth while uttering the syllable "wah." They also saw the "Brent goose," a well-known species, and the "Canada goose," which is the *wild goose par excellence*. Another species resembling the latter, called the "barnacle goose," was seen by our travellers. Besides these, Lucien informed them that there were several other smaller kinds that inhabit the northern countries of America. These valuable birds are objects of great interest to the people of the fur countries for months in the year. Whole tribes of Indians look to them as a means of support.

With regard to ducks, there was one species which our travellers had not yet met with, and for which they were every day upon the lookout. This was the far-famed "canvas-back," so justly celebrated among the epicures of America. None of them had ever eaten of it, as it is not known in Louisiana, but only upon the Atlantic coast of the United States. Norman, however, had heard of its existence in the Rocky Mountains — where it is said to breed — as well as in other parts of the fur countries, and they

were in hopes that they might fall in with it upon the waters of the Athabasca. Lucien was, of course, well acquainted with its "biography," and could have recognized one at sight; and as they glided along he volunteered to give his companions some information, not only about this particular species, but about the whole genus of these interesting birds.

"The canvas-back," began he, "is perhaps the most celebrated and highly-prized of all the ducks, on account of the exquisite flavor of its flesh - which is thought by some epicures to be superior to that of all other birds. It is not a large duck - - rarely weighing over three pounds - and its plumage is far from equalling in beauty that of many other species. It has a red or chestnut-colored head, a shining black breast, while the greater part of its body is of a grayish color; but upon close examination this gray is found to be produced by a whitish ground minutely mottled with zigzag black lines. I believe it is this mottling, combined with the color, which somewhat resembles the appearance and texture of ship's canvas, that has given the bird its trivial name; but there is some obscurity about the origin of this. In color, however, it so nearly resembles the 'pochard,' or 'red-head,' of Europe, and its near congener the red-head (*A. ferina*) of America, that at a distance it is difficult to distinguish them from each other. The last-mentioned species is always found associated with the canvas-backs, and are even sold for the latter in the markets of New York and Philadelphia. A naturalist, however, can easily distinguish them by their bills and eyes. The canvas-back has red eyes, with

a greenish black bill, nearly straight; while the eyes of the red-head are of an orange yellow, its bill bluish and concave along the upper ridge.

"The canvas-back is known in natural history as *Anas valisneria*, and this specific name is given to it because it feeds upon the roots of an aquatic plant, a species of 'tape-grass,' or 'eel-grass,' but botanically called '*Valisneria*,' after the Italian botanist, Antonio Valisneri. This grass grows in slow-flowing streams, and also on shoals by the sea-side — where the water, from the influx of rivers, is only brackish. The water where it grows is usually three to five feet in depth, and the plant itself rises above the surface to the height of two feet or more, with grass-like leaves of a deep green color. Its roots are white and succulent, and bear some resemblance to celery — hence the plant is known among the duck-hunters as 'wild celery.' It is upon these roots the canvas-back almost exclusively feeds, and they give to the flesh of these birds its peculiar and pleasant flavor. Wherever the valisneria grows in quantity, as in the Chesapeake Bay and some rivers, like the Hudson, there the canvas-backs resort, and are rarely seen elsewhere. They do not eat the leaves, but only the white soft roots, which they dive for and pluck up with great dexterity. The leaves when stripped of the root are suffered to float off upon the surface of the water; and where the ducks have been feeding, large quantities of them, under the name of 'grass wrack,' are thrown by the wind and tide upon the adjacent shores.

"Shooting the canvas-backs is a source of profit

to hundreds of gunners who live around the Chesapeake Bay, as these birds command a high price in the markets of the American cities. Disputes have arisen between the fowlers of different States around the Bay about the right of shooting upon it; and vessels full of armed men—ready to make war upon one another—have gone out on this account. But the government of these States succeeded in settling the matter peacefully, and to the satisfaction of all parties.”

The canoe at this moment shot round a bend, and a long smooth expanse of the river appeared before the eyes of our voyageurs. They could see that upon one side another stream ran in, with a very sluggish current; and around the mouth of this, and for a good stretch below it, there appeared a green sedge-like water-grass, or rushes. Near the border of this sedge, and in a part of it that was thin, a flock of wild fowl was diving and feeding. They were small, and evidently ducks; but the distance was yet too great for the boys to make out to what species they belonged. A single large swan—a trumpeter—was upon the water, between the shore and the ducks, and was gradually making towards the latter. François immediately loaded one of his barrels with swan, or rather “buck” shot, and Basil looked to his rifle. The ducks were not thought of—the trumpeter was to be the game. Lucien took out his telescope, and commenced observing the flock. They had not intended to use any precaution in approaching the birds, as they were not extremely anxious about getting a shot, and were permitting the canoe to glide

gently towards them. An exclamation from Lucien, however, caused them to change their tactics. He directed them suddenly to "hold water" and stop the canoe, at the same time telling them that the birds ahead were the very sort about which they had been conversing — the "canvas-backs." He had no doubt of it, judging from their color, size, and peculiar movements.

The announcement produced a new excitement. All four were desirous not only of shooting, but of *eating*, a canvas-back; and arrangements were set about to effect the former. It was known to all that the canvas-backs are among the slyest of water-fowl, so much so that it is difficult to approach them unless under cover. While feeding, it is said, they keep sentinels on the lookout. Whether this be true or not, it is certain that they never all dive together, some always remaining above water, and apparently watching while the others are under. A plan to get near them was necessary, and one was suggested by Norman, which was to tie bushes around the sides of the canoe, so as to hide both the vessel and those in it. This plan was at once adopted — the canoe was paddled up to the bank — thick bushes were cut, and tied along the gunwale; and then our voyageurs climbed in, and laying themselves as low as possible, commenced paddling gently downward in the direction of the ducks. The rifles were laid aside, as they could be of little service with such game. François' double-barrel was the arm upon which dependence was now placed; and François himself leaned forward in the bow in order to be ready, while the others attended

to the guidance of the vessel. The buck-shot had been drawn out, and a smaller kind substituted. The swan was no longer cared for or even thought of.

In about a quarter of an hour's time, the canoe, gliding silently along the edge of the sedge — which was the wild celery (*Valisneria spiralis*) — came near the place where the ducks were; and the boys, peeping through the leafy screen, could now see the birds plainly. They saw that they were not all canvas-backs, but that three distinct kinds of ducks were feeding together. One sort was the canvas-backs themselves, and a second kind very much resembled them, except that they were a size smaller. These were the "red-heads" or "pochards." The third species was different from either. They had also heads of a reddish color, but of a brighter red, and marked by a white band that ran from the root of the bill over the crown. This mark enabled Lucien at once to tell the species. They were widgeons (*A. Americana*); but the most singular thing that was now observed by our voyageurs was the terms upon which these three kinds of birds lived with each other. It appeared that the widgeon obtained its food by a regular system of robbery and plunder perpetrated upon the community of the canvas-backs. The latter, as Lucien had said, feeds upon the roots of the valisneria; but for these it is obliged to dive to the depth of four or five feet, and also to spend some time at the bottom while plucking them up. Now the widgeon is as fond of the "celery" as the canvas-back, but the former is not a diver — in fact, never goes under water except when washing itself or in play, and it has

therefore no means of procuring the desired roots. Mark, then, the plan that it takes to effect this end. Seated as near as is safe to the canvas-back, it waits until the latter makes his *somersault* and goes down. It (the widgeon) then darts forward so as to be sufficiently close, and, pausing again scans the surface with eager eye. It can tell where the other is at work, as the blades of the plant at which it is tugging are seen to move above the water. These at length disappear, pulled down as the plant is dragged from its root, and almost at the same instant the canvas-back comes up holding the root between his mandibles. But the widgeon is ready for him. He has calculated the exact spot where the other will rise; and, before the latter can open his eyes or get them clear of the water, the widgeon darts forward, snatches the luscious morsel from his bill, and makes off with it. Conflicts sometimes ensue; but the widgeon, knowing himself to be the lesser and weaker bird, never stands to give battle, but secures his prize through his superior agility. On the other hand, the canvas-back rarely attempts to follow him, as he knows that the other is swifter upon the water than he. He only looks after his lost root with an air of chagrin, and then, reflecting that there is "plenty more where it came from," kicks up its heels, and once more plunges to the bottom.

The red-head rarely interferes with either, as he is contented to feed upon the leaves and stalks, at all times floating in plenty upon the surface.

As the canoe glided near, those on board watched these curious manœuvres of the birds with feelings of interest. They saw, moreover, that the "trumpeter"

had arrived among them, and the ducks seemed to take no notice of him. Lucien was struck with something unusual in the appearance of the swan. Its plumage seemed ruffled and on end, and it glided along in a stiff and unnatural manner. It moved its neck neither to one side nor the other, but held its head bent forward, until its bill almost touched the water, in the attitude that these birds adopt when feeding upon something near the surface. Lucien said nothing to his companions, as they were all silent, lest they might frighten the ducks; but Basil and Norman had also remarked the strange look and conduct of the trumpeter. François' eyes were bent only upon the ducks, and he did not heed the other.

As they came closer, first Lucien, and then Basil and Norman, saw something else that puzzled them. Whenever the swan approached any of the ducks, these were observed to disappear under the water. At first, the boys thought that they merely dived to get out of his way, but it was not exactly in the same manner as the others were diving for the roots. Moreover, none of those that went down in the neighborhood of the swan were seen to come up again!

There was something very odd in all this, and the three boys, thinking so at the same time, were about to communicate their thoughts to one another, when the double crack of François' gun drove the thing, for a moment, out of their heads; and they all looked over the bushes to see how many canvas-backs had been killed. Several were seen dead or fluttering along the surface; but no one counted them, for a strange, and even terrible, object now presented itself

to the astonished senses of all. If the conduct of the swan had been odd before, it was now doubly so. Instead of flying off after the shot, as all expected it would do, it was now seen to dance and plunge about on the water, uttering loud screams, that resembled the human voice far more than any other sounds! Then it rose as if pitched into the air, and fell on its back some distance off; while in its place was seen a dark, round object moving through the water, as if making for the bank, and uttering, as it went, the same hideous human-like screams!

This dark object was no other than the poll of a human being; and the river shallowing towards the bank, it rose higher and higher above the water, until the boys could distinguish the glistening neck and naked shoulders of a red and brawny Indian! All was now explained. The Indian had been duck-hunting, and had used the stuffed skin of the swan as his disguise; and hence the puzzling motions of the bird. He had not noticed the canoe — concealed as it was — until the loud crack of François' gun had startled him from his work. This, and the heads and white faces of the boys peeping over the bushes, had frightened him, even more than he had them. Perhaps they were the first white faces he had ever seen. But, whether or not, sadly frightened he was; for, on reaching the bank, he did not stop, but ran off into the woods, howling and yelling as if Old Nick had been after him — and no doubt he believed that such was the case.

The travellers picked up the swan-skin out of curiosity: and, in addition to the ducks which François

had killed, they found nearly a score of these birds which the Indian had dropped in his fright, and that had afterwards risen to the surface. These were strung together, and all had their necks broken.

After getting them aboard, the canoe was cleared of the bushes; and the paddles being once more called into service, the little craft shot down stream like an arrow.

CHAPTER XX.

THE DUCKS OF AMERICA.

LUCIEN now continued his "monograph" of the American ducks.

"There are," said he, "more than two dozen species of ducks on the waters of North America. These the systematists have divided into no less than *eighteen genera*! Why, it would be more easy to learn all that ever was known about all the ducks in creation, than to remember the eighteen generic names which these gentlemen have invented and put forward. Moreover, the habits of any two species of these ducks are more similar than those of any two kinds of dogs. Why then, I should ask — why this complication? It is true that the ducks do not resemble each other in every thing. Some species are fonder of water than others. Some feed entirely upon vegetable substances; others upon small fish, insects, crustacea, &c. Some live entirely in the sea; others make their home in the fresh-water lakes and rivers, while many species dwell indifferently, either in salt or fresh waters. Some love the open wave; others the sedgy marsh; while one or two species roost upon trees, and build their nests in the hollow trunks. Notwithstanding all this, there is such a similarity in the appearance and habits of the different species, that I think the systematists

have improved but little, if any thing, upon the simple arrangement of the true naturalist, Wilson, who — poor Scotch *émigré* as he was, with an empty purse and a loaded gun — has collected more original information about the birds of America than all that have followed him. He described the ducks of America under the single genus *Anas*; and, in my opinion, described them in a more intelligent and intelligible manner than any one has done since his time — not even excepting another great and true naturalist, whose career has been longer, more successful, and happier; and whose fame, in consequence of his better fortune, has become, perhaps, higher and more extended.

“The water-fowl of America,” continued Lucien — “I mean the swans, geese, and ducks, are of great importance in the fur countries where we are now travelling. At certain seasons of the year, in many parts, they furnish almost the only article of food that can be procured. They are all migratory — that is, when the lakes and rivers of these regions become frozen over in the winter they all migrate southward, but return again to breed and spend the summer. They do this, perhaps, because these wild territories afford them a better security during the season of incubation, and afterwards of moulting. It is not very certain, however, that this is the reason, and for my part I am inclined to think not, for there are also wild, uninhabited territories enough in southern latitudes, and yet they forsake these and migrate north in the spring. ‘Their arrival in the fur countries,’ writes a distinguished naturalist, ‘marks the commencement of spring, and diffuses as much joy among the wander-

ing hunters of the Arctic regions, as the harvest or vintage excites in more genial climes.' Both by the Indians and hunters in the employ of the Hudson's Bay Company, swans, geese, and ducks are slaughtered by thousands, and are eaten not only when fresh killed, but they are salted in large quantities, and so preserved for winter use, when fresh ones can no longer be procured. Of course, both Indian and white hunters use all their art in killing or capturing them; and to effect this they employ many different methods, as decoying, snaring, netting, and shooting them: but cousin Norman here could give a better description of all these things than I. Perhaps he will favor us with some account of them."

"The Indians," said the young trader, taking up the subject without hesitation, "usually snare them. Their most common way is to make a number of hedges or wattle fences projecting into the water at right angles to the edge of the lake, or, it may be, river. These fences are two or three yards apart, and between each two there is, of course, an opening, into which the birds swim, as they make towards the shore for their food. In these openings, then, the snares are set and tied so firmly to a post stuck in the bottom, that the birds, whether ducks, geese, or swans, when caught, may not be able to drag it away. To keep the snare in its place, it is secured to the wattles of the fence with tender strands of grass, that of course give way the moment the fowl becomes entangled. The snares are made out of deer sinews, twisted like packthread, and sometimes of thongs cut from a 'parchment' deer-skin, which, as you know, is

a deer-skin simply dried, and not tanned or dressed. The making of the fences is the part that gives most trouble. Sometimes the timber for the stakes is not easily had; and even when it is plenty, it is no easy matter to drive the stakes into the bottom and wattle them, while seated in a vessel so crank as a birch canoe. Sometimes, in the rivers where the water-fowl most frequent, the current is swift, and adds to this trouble. Where the lakes and rivers are shallow, the thing becomes easier; and I have seen small lakes and rivers fenced in this way from shore to shore. In large lakes this would not be necessary, as most of the water-birds — such as the swans and geese — and all the ducks that are not of the diving kinds are sure to come to the shore to feed, and are more likely to be taken close in to land than out in the open water.

“The Indians often snare these birds upon the nest, and they always wash their hands before setting the snare. They have a notion — I don’t know whether true or not — that if their hands are not clean, the birds can smell the snare, and will be shy of going into it. They say that all these birds — and I believe it’s true of all fowls that make their nests upon the ground — go into the nest at one side, and out at the opposite. The Indians, knowing this, always set their snares at the side where the bird enters, and by this they are more sure of catching them, and also of getting them some hours sooner.

“Besides snaring the water-fowl,” continued Norman, “the Indians sometimes catch them in nets, and sometimes on hooks baited with whatever the birds

are known to eat. They also shoot them as the white hunters do, and to get near enough use every sort of cunning that can be thought of. Sometimes they decoy them within shot, by putting wooden ducks on the water near their cover, where they themselves are stationed. Sometimes they disguise their canoes under brushwood, and paddle to the edge of the flock; and when the moulting season comes round, they pursue them through the water and kill them with sticks. The swans, when followed in this way, often escape. With their strong wings, and great webbed feet, they can flap faster over the surface than a canoe can follow them. I have heard of many other tricks which the Indians of different tribes make use of, but I have only seen these ways I have described, besides the one we have just witnessed."

Norman was one of your practical philosophers, who did not choose to talk much of things with which he was not thoroughly acquainted.

Lucien now took up the thread of the conversation, and gave some further information about the different species of American ducks.

"One of the most celebrated," said he, "is the 'eider-duck' (*Anas mollissima*). This is prized for its down, which is exceedingly soft and fine, and esteemed of great value for lining quilts and making beds for the over-luxurious. It is said that three pounds' weight of 'eider down' can be compressed to the size of a man's fist, and yet is afterwards so dilatable as to fill a quilt of five feet square. The down is generally obtained without killing the bird, for that which is plucked from dead birds is far inferior, and

has lost much of its elasticity. The mode of procuring it is to steal it from the nest, in the absence of the birds. The female lines the nest with down plucked from her own breast. When this is stolen from her, by those who gather the commodity, she plucks out a second crop of it, and arranges it as before. This being also removed, it is said that the male bird then makes a sacrifice of his downy waistcoat, and the nest is once more put in order; but should this too be taken, the birds forsake their nest never to return to it again. The quantity of 'eider down' found in a single nest is sufficient to fill a man's hat, and yet it will weigh only about three ounces.

"The eider-duck is about the size of the common mallard, or wild duck proper. Its color is black below, and buff-white on the back, neck, and shoulders, while the forehead is bluish black. It is one of the 'sea-ducks,' or *fuligulæ*, as the naturalists term them, and it is rarely seen in fresh water. Its food is principally the soft mollusca common in the Arctic seas, and its flesh is not esteemed except by the Greenlanders. It is at home only in the higher latitudes of both continents, and loves to dwell upon the rocky shores of the sea; but in very severe winters it makes its appearance along the Atlantic coast of the United States, where it receives different names from the gunners—such as 'black-and-white coot,' 'big sea-duck,' 'shoal-duck,' and 'squaw-duck;' and under these titles it is often sold in the markets of American cities. Some suppose that the eider-duck could be easily domesticated. If so, it would, no doubt, prove a profitable as well as an interesting

experiment; but I believe it has already been attempted without success. It is in the countries of Northern Europe where the gathering of the eider down has been made an object of industry. On the American Continent the pursuit is not followed, either by the native or white settler.

“Another species common to the higher latitudes of both continents is the ‘king-duck,’ so called from its very showy appearance. Its habits are very similar to the ‘eider,’ and its down is equally soft and valuable, but it is a smaller bird.

“A still smaller species, also noted for its brilliant plumage, inhabits the extreme north of both continents. This is the ‘harlequin-duck;’ or, as the early colonists term it, the ‘lord.’

“But the ‘wood-duck’ (*Anas sponsa*) is, perhaps, the most beautiful of all the American species, or, indeed, of all ducks whatever — although it has a rival in the *mandarin duck* of China, which, indeed, it very much resembles, both in size and markings. The wood-duck is so called from the fact of its making its nest in hollow trees, and roosting occasionally on the branches. It is a fresh-water duck, and a southern species — never being seen in very high latitudes; nor is it known in Europe in a wild state, but is peculiar to the Continent of America. It is one of the easiest species to domesticate, and no zoölogical garden is now without it; in all of which its small size — being about that of a widgeon — its active movements and innocent look, its musical *peet-peet*, and, above all, its beautiful plumage, make it a general favorite.

“ Besides these, there are many others of the American ducks, whose description would interest you, but you would grow tired were I to give a detailed account of them all ; so I shall only mention a few that are distinguished by well-known peculiarities. There is the ‘whistler’ (*A. clangula*), which takes its trivial name from the whistling sound of its wings while in flight ; and the ‘shoveller,’ so called from the form of its bill ; and the ‘conjuring,’ or ‘spirit’ ducks of the Indians (*Anas vulgaris* and *albeola*), because they dive so quickly and dexterously, that it is almost impossible to shoot them either with bow or gun. There is the ‘old wife,’ or ‘old squaw’ (*Anas glacialis*), so called from its incessant cackle, which the hunters liken to the scolding of an ill-tempered old wife. This species is the most noisy of all the duck tribe, and is called by the voyageurs ‘caccawée,’ from its fancied utterance of these syllables ; and the sound, so often heard in the long nights of the fur countries, has been woven into and forms the burden of many a voyageur’s song. In some parts of the United States the caccawée is called ‘south-southerly,’ as its voice is there thought to resemble this phrase, while at the time when most heard — the autumn — these ducks are observed flying in a southerly direction.

“ Besides these,” continued Lucien, “there are the teals — blue and green-winged — and the coots, and the widgeon — slightly differing from the widgeon of Europe — and there is the rare and beautiful little ruddy duck (*A. rubida*), with its bright mahogany color — its long upright tail and short neck — that at

a distance give it the appearance of a duck with two heads. And there is the well-known 'pintail,' and the 'pochard,' or 'red-head;' and the 'mallard,' from which comes the common domestic variety, and the 'scoter,' and 'surf,' and 'velvet,' and 'dusky,' ducks — these last four being all, more or less, of a dark color. And there are the 'shell-drakes,' or 'fishers,' that swim low in the water, dive and fly well, but walk badly, and feed altogether on fish. These, on account of their toothed bills, form a genus of themselves — the 'mergansers,' — and four distinct species of them are known in America."

The approach of night, and the necessity of landing, to make their night camp, brought Lucien's lecture to a close. Indeed François was glad when it ended, for he was beginning to think it somewhat tedious.

CHAPTER XXI.

THE SHRIKE AND THE HUMMING-BIRDS.

THE picturesque scenery of the Elk appeared to be a favorite resort with the feathered creation. Here our voyageurs saw many kinds of birds; both those that migrate into the fur countries during summer and those that make their home there in the cold, dark days of winter. Among the former were observed the beautiful blue bird of Wilson (*Sialia Wilsoni*), which, on account of its gentle and innocent habits, is quite as much esteemed in America as the "robin" in England. Another favorite of the farmer and the homestead, the purple martin, was seen gracefully wheeling through the air; while, among the green leaves, fluttered many brilliant birds. The "cardinal grosbeak" (*Pitylus cardinalis*) with his bright scarlet wings; the blue jay, noisy and chattering; the rarer "crossbill" (*Loxia*) with its deep crimson color; and many others, equally bright and beautiful, enlivened the woods, either with their voice or their gaudy plumage. There was one bird, however, that had neither fine "feathers" nor an agreeable voice, but that interested our travellers more than any of the others. Its voice was unpleasant to the ear, and sounded more like the grating of a rusty hinge than any thing else they could think of. The bird

itself was not larger than a thrush, of a light gray color above, white underneath, and with blackish wings. Its bill resembled that of the hawks, but its legs were more like those of the woodpecker tribe; and it seemed, in fact, to be a cross between the two. It was neither the color of the bird, nor its form, nor yet its song, that interested our travellers, but its singular habits; and these they had a fine opportunity of observing at one of their "noon camps," where they had halted to rest and refresh themselves during the hot midday hours. The place was on one of the little islets, which was covered with underwood, with here and there some larger trees. The underwood bushes were of various sorts; but close to the spot where they had landed was a large thicket of honeysuckle, whose flowers were in full bloom, and filled the air with their sweet perfume.

While seated near these, François' quick eye detected the presence of some very small birds moving among the blossoms. They were at once pronounced to be humming-birds, and of that species known as the "ruby-throats" (*Trochilus colubris*), so called, because a flake of a beautiful vinous color under the throat of the males exhibits, in the sun, all the glancing glories of the ruby. The back, or upper parts, are of a gilded green color; and the little creature is the smallest bird that migrates into the fur countries, with one exception, and that is a bird of the same genus—the "cinnamon humming-bird" (*Trochilus rufus*). The latter, however, has been seen in the northern regions, only on the western side of the Rocky Mountains; but then it has been observed

even as far north as the bleak and inhospitable shores of Nootka Sound. Mexico, and the tropical countries of America, are the favorite home of the humming-birds; and it was, for a long time, supposed that the "ruby-throats" were the only ones that migrated farther north than the territory of Mexico itself. It is now known, that besides the "cinnamon humming-bird," two or three other species annually make an excursion into higher latitudes.

The "ruby-throats" not only travel into the fur countries, but breed in numbers upon the Elk River, the very place where our travellers now observed them.

As they sat watching these little creatures, for there were several of them skipping about and poisoning themselves opposite the flowers, the attention of all was attracted to the movements of a far different sort of bird. It was that one we have been speaking of. It was seated upon a tree, not far from the honeysuckles; but every now and then it would spring from its perch, dash forward, and after whirring about for some moments among the humming-birds, fly back to the same tree.

At first the boys watched these manœuvres without having their curiosity excited. It was no new thing to see birds acting in this manner. The jays, and many other birds of the fly-catching kind (*Muscicapæ*), have this habit, and nothing was thought of it at the moment. Lucien, however, who had watched the bird more narrowly, presently declared to the rest that it was catching the humming-birds, and preying upon them — that each time it made a dash among

the honeysuckles, it carries off one in its claws, the smallness of the victim having prevented them at first from noticing this fact. They all now watched it more closely than before, and were soon satisfied of the truth of Lucien's assertion, as they saw it seize one of the ruby-throats in the very act of entering the corolla of a flower. This excited the indignation of François, who immediately took up his "double-barrel," and proceeded towards the tree where the bird, as before, had carried this last victim. The tree was a low one, of the locust or *pseud-acacia* family, and covered all over with great thorny spikes, like all trees of that tribe. François paid no attention to this; but, keeping under shelter of the under-wood, he crept forward until within shot. Then raising his gun, he took aim, and pulling trigger, brought the bird fluttering down through the branches. He stepped forward and picked it up—not that he cared for such unworthy game, but Lucien had called to him to do so, as the naturalist wished to make an examination of the creature. He was about turning to go back to camp, when he chanced to glance his eye up into the locust-tree. There it was riveted by a sight which caused him to cry out with astonishment. His cry brought the rest running up to the spot, and they were not less astonished than he, when they saw the cause of it. I have said that the branches of the tree were covered with long thorny spikes that pointed in every direction; but one branch in particular occupied their attention. Upon this there were about a dozen of these spines pointing upward, and upon each spike *was impaled a ruby*

moat! The little creatures were dead, of course, but they were neither torn nor even much ruffled in their plumage. They were all placed back upwards, and as neatly spitted upon the thorns as if they had been put there by human hands. On looking more closely, it was discovered that other creatures, as well as the humming-birds, had been served in a similar manner. Several grasshoppers, spiders, and some coleopterous insects were found, and upon another branch two small meadow-mice (*Arvicola*) had been treated to the same terrible death!

To Basil, Norman, and François, the thing was quite inexplicable, but Lucien understood well enough what it meant. All these creatures, he informed them, were placed there by the bird which François had shot, and which was no other than the "shrike" (*Lanius*) or "butcher-bird" — a name by which it is more familiarly known, and which it receives from the very habit they had just observed. Why it follows such a practice Lucien could not tell, as naturalists are not agreed upon this point. Some have asserted that it spits the spiders and other insects for the purpose of attracting nearer the small birds upon which it preys; but this cannot be true, for it preys mostly upon birds that are not insect-eaters, as the finches; besides, it is itself as fond of eating grasshoppers as any thing else, and consumes large quantities of these insects. The most probable explanation of the singular and apparently cruel habit of the butcher-bird is, that it merely places its victims upon the thorns, in order to keep them safe from ground ants, rats, mice, raccoons, foxes, and other preying

creatures — just as a good cook would hang up her meat or game in the larder to prevent the cats from carrying it off. The thorny tree thus becomes the storehouse of the shrike, where he hangs up his superfluous spoil for future use, just as the crows, magpies, and jays, make their secret deposits in chinks of walls and the hollows of trees. It is no argument against this theory, that the shrike sometimes leaves these stores without returning to them. The fox, and dog, as well as many other preying creatures, have the same habit.

Wondering at what they had seen, the voyageurs returned to their camp, and once more embarked on their journey.

CHAPTER XXII.

THE FISH-HAWK.

A FEW days after, another incident occurred to our voyageurs, which illustrated the habits of a very interesting bird, the "ospray," or fish-hawk, as it is more familiarly known in America.

The ospray (*Falco haliæetus*) is a bird of the falcon tribe, and one of the largest of the genus — measuring two feet from bill to tail, with an immense spread of wing in proportion, being nearly six feet from tip to tip. It is of a dark brown color above, that color peculiar to most of the hawk tribe, while its lower parts are ashy white. Its legs and bill are blue, and its eyes of a yellow orange. It is found in nearly all parts of America, where there are waters containing fish, for on these it exclusively feeds. It is more common on the sea-coast than in the interior, although it also frequents the large lakes, and lives in the central parts of the continent during summer, when these are no longer frozen over. It is not often seen upon muddy rivers, as there it would stand no chance of espying its victims in the water. It is a migratory bird, seeking the South in winter, and especially the shores of the great Mexican Gulf, where large numbers are often seen fishing together. In the spring season these birds move to the northward, and make their appearance along the

Atlantic coast of the continent, where they diffuse joy into the hearts of the fishermen — because the latter know, on seeing them, that they may soon expect the large shoals of herring, shad, and other fish, for which they have been anxiously looking out. So great favorites are they with the fishermen, that they would not knowingly kill an ospray for a boat-load of fish, but regard these bold fishing birds in the light of “professional brethren.” In this case the old adage that “two of a trade never agree” is clearly contradicted. The farmer often takes up his gun to fire at the ospray — mistaking it for the red-tailed buzzard (*Buteo borealis*) or some other hawk, several species of which at a distance it resembles — but, on discovering his mistake, brings down his piece without pulling trigger, and lets the ospray fly off unharmed. This singular conduct on the part of the farmer arises from his knowledge of the fact, that the ospray will not only *not* kill any of his ducks or hens, but that where he makes a settlement he will drive off from the premises all the hawks, buzzards, and kites, that would otherwise prey upon the poultry. With such protection, therefore, the ospray is one of the securest birds in America. He may breed in a tree over the farmer’s or fisherman’s door without the slightest danger of being disturbed in his incubation. I say *his* incubation; but the male takes no part in this domestic duty further than to supply his loved mate with plenty of fish while she does the hatching business. Of course, thus protected, the ospray is not a rare bird. On the contrary, fish-hawks are more numerous than perhaps any other species of the hawk tribe. Twenty or thirty

nests may be seen near each other in the same piece of woods, and as many as three hundred have been counted on one little island. The nests are built upon large trees — not always at the tops, as those of rooks, but often in forks within twenty feet of the ground. They are composed of large sticks, with stalks of corn, weeds, pieces of wet turf, and then lined plentifully with dry sea-grass, or any other grass that may be most convenient. The whole nest is big enough to make a load for a cart, and would be heavy enough to give any horse a good pull. It can be seen, when the woods are open, to an immense distance, and the more easily, as the tree upon which it is built is always a “dead wood,” and therefore without leaves to conceal it. Some say that the birds select a dead or decaying tree for their nest. It is more probable such is the effect, and not the cause, of their building upon a particular tree. It is more likely that the tree is killed partly by the mass of rubbish thus piled upon it, and partly by the nature of the substances, such as sea-weed in the nest, the oil of the fish, the excrement of the birds themselves, and the dead fish that have been dropped about the root, and suffered to remain there ; for when the ospray lets fall his finny prey, which he often does, he never condescends to pick it up again, but goes in search of another. Boys “a-nesting” might easily discover the nest of the ospray ; but were they inclined to despoil it of its three or four eggs (which are about the size of a duck’s, and blotched with Spanish brown), they would find that a less easy task, for the owners would be very likely to claw their eyes out, or else scratch the tender skin from their

beardless cheeks: so that boys do not often trouble the nest of the ospray. A very curious anecdote is related of a negro having climbed up to plunder a nest of these birds. The negro's head was covered with a close nap of his own black wool, which is supposed by a certain stretch of fancy to have the peculiarity of "growing in at both ends." The negro, having no other protection than that which his thick fur afforded him, was assailed by both the owners of the nest, one of which, making a dash at the "darkie's" head, struck his talons so firmly into the wool, that he was unable to extricate them, and there stuck fast, until the astonished plunderer had reached the foot of the tree. We shall not answer for the truthfulness of this anecdote, although there is nothing improbable about it; for certain it is that these birds defend their nests with courage and fury, and we know of more than one instance of persons being severely wounded who made the attempt to rob them.

The osprays, as already stated, feed exclusively on fish. They are not known to prey upon birds or quadrupeds of any kind, even when deprived of their customary food, as they sometimes are for days, on account of the lakes and rivers, in which they expected to find it, being frozen over to a later season than usual. Other birds, as the purple grakles, often build among the sticks of the ospray's nest, and rear their young without being meddled with by this generous bird. This is an important point of difference between the ospray and other kinds of hawks; and there is a peculiarity of structure about the feet and legs of the ospray, that points to the nature of his

food and his mode of procuring it. His legs are disproportionately long and strong. They are without feathers nearly to the knees. The feet and toes are also very long, and the soles are covered with thick, hard scales, like the teeth of a rasp, which enable the bird to hold securely his slippery prey. The claws, too, are long, and curved into semicircles, with points upon them almost as sharp as needles.

I have stated that an incident occurred to our party that illustrated some of the habits of this interesting bird. It was upon the afternoon of a Saturday, after they had fixed their camp to remain for the following day. They had landed upon a point or promontory that ran out into the river, and from which they commanded a view of a fine stretch of water. Near where they had placed their tent was the nest of an ospray, in the forks of a large poplar. The tree, as usual, was dead, and the young were plainly visible over the edge of the nest. They appeared to be full-grown and feathered; but it is a peculiarity of the young osprays that they will remain in the nest, and be fed by the parent birds, until long after they might be considered able to shift for themselves. It is even asserted that the latter became impatient at length, and drive the young ones out of the nest by beating them with their wings; but that for a considerable time afterwards they continue to feed them — most likely until the young birds learn to capture their finny prey for themselves.

This Lucien gave as a popular statement, but did not vouch for its truth. It was not long, however, before both he and his companions witnessed its complete verification.

The old birds, after the arrival of the voyageurs upon the promontory, had remained for some time around the nest, and at intervals had shot down to where the party was, uttering loud screams, and making the air whizz with the strokes of their wings. Seeing that there was no intention of disturbing them, they at length desisted from these demonstrations, and sat for a good while quietly upon the edge of their nest. Then first one, and shortly after the other, flew out, and commenced sailing in circles, at the height of a hundred feet or so above the water. Nothing could be more graceful than their flight. Now they would poise themselves a moment in the air, then turn their bodies as if on a pivot, and glide off in another direction. All these motions were carried on with the most perfect ease, and as if without the slightest aid from the wings. Again they would come to a pause, holding themselves fixed in mid-air by a gentle flapping, and appearing to scrutinize some object below. Perhaps it was a fish; but it was either too large a one, or not the species most relished, or maybe it had sunk to too great a depth to be easily taken. Again they sail around; one of them suddenly arrests its flight, and, like a stone projected from a sling, shoots down to the water. Before reaching the surface, however the fish, whose quick eye has detected the coming enemy, has gone to the dark bottom, and concealed himself; and the ospry, suddenly checking himself by his wings and the spread of his full tail, mounts again, and recommences his curvilinear flight.

After this had gone on for some time, one of the

birds — the larger one, and therefore the female — was seen to leave off hunting, and return to the nest. There she sat only for a few seconds, when, to the astonishment of the boys, she began to strike her wings against the young ones, as if she was endeavoring to force them from the nest. This was just what she designed doing. Perhaps her late unsuccessful attempt to get them a fish had led her to a train of reflections, and sharpened her determination to make them shift for themselves. However that may be, in a few moments she succeeded in driving them up to the edge, and then, by half pushing, and half beating them with her wings, one after the other — two of them there were — was seen to take wing, and soar away out over the lake.

At this moment, the male shot down upon the water, and then rose again into the air, bearing a fish, head-foremost, in his talons. He flew directly towards one of the young, and meeting it as it hovered in the air, turned suddenly over, and held out the fish to it. The latter clutched it with as much ease as if it had been accustomed to the thing for years, and then turning away, carried the fish to a neighboring tree, and commenced devouring it. The action had been perceived by the other youngster, who followed after, and alighted upon the same branch, with the intention of sharing in the meal. In a few minutes, the best part of the fish was eaten up, and both, rising from the branch, flew back to their nest. There they were met by the parents, and welcomed with a loud squeaking, that was intended, no doubt, to congratulate them upon the success of their first “fly.”

CHAPTER XXIII.

THE OSPRAY AND HIS TYRANT.

AFTER remaining for some time on the nest along with the others, the old male again resolved to "go a-fishing," and with this intent he shot out from the tree, and commenced wheeling above the water. The boys, having nothing better to engage them, sat watching his motions, while they freely conversed about his habits and other points in his natural history. Lucien informed them that the ospray is a bird common to both continents, and that it is often seen upon the shores of the Mediterranean, pursuing the finny tribes there, just as it does in America. In some parts of Italy it is called the "leaden eagle," because its sudden heavy plunge upon the water is fancied to resemble the falling of a piece of lead.

While they were discoursing, the ospray was seen to dip once or twice towards the surface of the water, and then suddenly check himself, and mount upward again. These manœuvres were no doubt caused by the fish which he intended to "hook" having suddenly shifted their quarters. Most probably experience had taught them wisdom, and they knew the ospray as their most terrible enemy. But they were not to escape him at all times. As the boys watched the bird, he was seen to rise himself for an instant in the air, then sud

denly closing his wings, he shot vertically downward. So rapid was his descent, that the eye could only trace it like a bolt of lightning. There was a sharp whizzing sound in the air—a plash was heard—then the smooth bosom of the water was seen to break, and the white spray rose several feet above the surface. For an instant the bird was no longer seen. He was underneath, and the place of his descent was marked by a patch of foam. Only a single moment was he out of sight. The next he emerged, and a few strokes of his broad wing carried him into the air, while a large fish was seen griped in his claws. As the voyageurs had before noticed, the fish was carried headforemost, and this led them to the conclusion that in striking his prey beneath the water, the osprey follows it and aims his blow from behind.

After mounting a short distance the bird paused for a moment in the air, and gave himself a shake, precisely as a dog would do after coming out of water. He then directed his flight, now somewhat slow and heavy, towards the nest. On reaching the tree, however, there appeared to be some mismanagement. The fish caught among the branches as he flew inward. Perhaps the presence of the camp had distracted his attention, and rendered him less careful. At all events, the prey was seen to drop from his talons; and, bounding from branch to branch, went tumbling down to the bottom of the tree.

Nothing could be more opportune than this, for François had not been able to get a “nibble” during the whole day, and a fresh fish for dinner was very desirable to all. François and Basil had both started

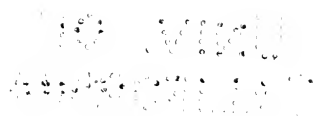
to their feet, in order to secure the fish before the ospray should pounce down and pick it up; but Lucien assured them that they need be in no hurry about that, as the bird would not touch it again after he had once let it fall. Hearing this, they took their time about it, and walked leisurely up to the tree, where they found the fish lying. After taking it up they were fain to escape from the spot, for the effluvium arising from a mass of other fish that lay in a decomposed state around the tree was more than any delicate pair of nostrils could endure. The one they had secured proved to be a very fine salmon of not less than six pounds weight, and therefore much heavier than the bird itself! The track of the ospray's talons was deeply marked; and by the direction in which the creature was scored, it was evident the bird had seized it from behind. The old hawks made a considerable noise while the fish was being carried away; but they soon gave up their squealing, and, once more hovering out over the river, sailed about with their eyes bent upon the water below.

"What a number of fish they must kill!" said François. "They don't appear to have much difficulty about it. I should think they get as much as they can eat. See! there again! Another, I declare!"

As François spoke, the male ospray was seen to shoot down as before, and this time, although he appeared scarcely to dip his foot in the water, rose up with a fish in his talons.

"They have sometimes others to provide for besides themselves," remarked Lucien. "For instance, the bald eagle ——"





Lucien was interrupted by a cackling scream, which was at once recognized as that of the very bird whose name had just escaped his lips. All eyes were instantly turned in the direction whence it came — which was from the opposite side of the river — and there, just in the act of launching itself from the top of a tall tree, was the great enemy of the ospray, — the white-headed eagle himself!

“Now a chase!” cried François; “yonder comes the big robber!”

With some excitement of feeling, the whole party watched the movements of the birds. A few strokes of the eagle’s wing brought him near; but the ospray had already heard his scream, and knowing it was no use carrying the fish to his nest, turned away from it, and rose spirally upward, in the hope of escaping in that direction. The eagle followed, beating the air with his broad pinions, as he soared after. Close behind him went the female ospray, uttering wild screams, flapping her wings against his very beak, and endeavoring to distract his attention from the chase. It was to no purpose, however, as the eagle full well knew her object, and disregarding her impotent attempts, kept on in steady flight after her mate. This continued until the birds had reached a high elevation, and the osprays, from their less bulk, were nearly out of sight. But the voyageurs could see that the eagle was on the point of overtaking the one that carried the fish. Presently, a glittering object dropped down from the heavens, and fell with a plunge upon the water. It was the fish, and almost at the same instant was heard the “whish!” of the eagle, as the great

bird shot after it. Before reaching the surface, however, his white tail and wings were seen to spread suddenly, checking his downward course; and then, with a scream of disappointment, he flew off in a horizontal direction, and alit upon the same tree from which he had taken his departure. In a minute after the osprays came shooting down, in a diagonal line, to their nest; and having arrived there, a loud and apparently angry consultation was carried on for some time, in which the young birds bore as noisy a part as either of their parents.

"It's a wonder," said Lucien, "the eagle missed the fish — he rarely does. The impetus which he can give his body enables him to overtake a falling object before it can reach the earth. Perhaps the female ospray was in his way, and hindered him."

"But why did he not pick it up in the water?" demanded François.

"Because it went to the bottom, and he could not reach it — that's clear."

It was Basil who made answer, and the reason he assigned was the true one.

"It's too bad," said François, "that the ospray, not half so big a bird, must support this great robber-tyrant by his industry."

"It's no worse than among our own kind," interposed Basil. "See how the white man makes the black one work for him here in America. That, however, is the *few* toiling for the *million*. In Europe the case is reversed. There, in every country, you see the *million* toiling for the *few* — toiling to support an oligarchy in luxurious ease, or a monarch in barbaric splendor."

"But why do they do so? the fools!" asked François, somewhat angrily.

"Because they know no better. That oligarchy, and those monarchs, have taken precious care to educate and train them to the belief that such is the *natural* state of man. They furnish them with school-books which are filled with beautiful sophisms — all tending to inculcate principles of endurance of wrong, and reverence for their wrongers. They fill their rude throats with hurrah songs that paint false patriotism in glowing colors, making loyalty — no matter to whatsoever despot — the greatest of virtues, and revolution the greatest of crimes; they studiously divide their subjects into several creeds, and then, playing upon the worst of all passions — the passion of religious bigotry — easily prevent their misguided helots from uniting upon any point which would give them a real reform. Ah! it is a terrible game which the present rulers of Europe are playing!"

It was Basil who gave utterance to these sentiments, for the young republican of Louisiana had already begun to think strongly on political subjects. No doubt Basil would one day be an M. C.

"The bald eagles have been much blamed for their treatment of the osprays; but," said Lucien, "perhaps they have more reason for levying their tax than at first appears. It has been asked: Why they do not capture the fish themselves? Now, I apprehend that there is a *natural* reason why they do not. As you have seen, the fish are not always caught upon the surface. The ospray has often to plunge beneath the water in the pursuit, and Nature has gifted him with

power to do so, which, if I am not mistaken, she has denied to the eagles. The latter are therefore compelled, in some measure, to depend upon the former for a supply. But the eagles sometimes do catch the fish themselves, when the water is sufficiently shallow, or when their prey comes near enough to the surface to enable them to seize it."

"Do they ever kill the osprays?" inquired François.

"I think not," replied Lucien; "that would be 'killing the goose,' &c. They know the value of their tax-payers too well to get rid of them in that way. A band of osprays, in a place where there happens to be many of them together, have been known to unite and drive the eagles off. That, I suppose, must be looked upon in the light of a successful *revolution*."

The conversation was here interrupted by another incident. The osprays had again gone out fishing, and, at this moment, one of them was seen to pounce down and take a fish from the water. It was a large fish, and, as the bird flew heavily upward, the eagle again left its perch, and gave chase. This time the ospray was overtaken before it had got two hundred yards into the air; and seeing it was no use attempting to carry off the prey, it opened its claws and let it drop. The eagle turned suddenly, poised himself a moment, and then shot after the falling fish. Before the latter had got near the ground, he overtook and secured it in his talons. Then, arresting his own flight by the sudden spread of his tail, he winged his way silently across the river, and disappeared among

the trees upon the opposite side. The ospray, taking the thing as a matter of course, again descended to the proper elevation, and betook himself to his work. Perhaps he grinned a little like many another royal tax-payer, but he knew the tax had to be paid all the same, and he said nothing.

An incident soon after occurred that astonished and puzzled our party not a little. The female ospray that all this time seemed to have had but poor success in her fishing, was now seen to descend with a rush, and plunge deeply into the wave. The spray rose in a little cloud over the spot, and all sat watching with eager eyes to witness the result. What was their astonishment when, after waiting many seconds, the bird still remained under water! Minutes passed, and still she did not come up. *She came up no more!* The foam she had made in her descent floated away — the bosom of the water was smooth as glass — not a ripple disturbed its surface. They could have seen the smallest object for a hundred yards or more around the spot where she had disappeared. It was impossible she could have emerged without their seeing her. Where, then, had she gone? This, as I have said, puzzled the whole party, and formed a subject of conjecture and conversation for the rest of that day, and also upon the next. Even Lucien was unable to solve the mystery. It was a point in the natural history of the ospray unknown to him. Could she have drowned herself? Had some great fish, the “gar pike,” or some such creature, got hold of and swallowed her? Had she dashed her head against a rock, or become entangled in weeds at the bottom of the river?

All these questions were put, and various solutions of the problem were offered. The true one was not thought of, until accident revealed it. It was Saturday when the incident occurred. The party, of course, remained all next day at the place. They heard almost continually the cry of the bereaved bird, who, most likely, knew no more than they what had become of his mate. On Monday our travellers reëmbarked and continued down stream. About a mile below, as they were paddling along, their attention was drawn to a singular object floating upon the water. They brought the canoe alongside it. It was a large fish, a sturgeon, floating dead, with a bird beside it, also dead! On turning both over, what was their astonishment to see that the talons of the bird were firmly fixed in the back of the fish! It was the *female ospray*! This explained all. She had struck a fish too heavy for her strength, and being unable to clear her claws again, had been drawn under the water, and had perished along with her victim!

CHAPTER XXIV.

THE VOYAGE INTERRUPTED.

ABOUT ten days' rapid travelling down the Elk River brought our party into the Athabasca Lake—sometimes called the “Lake of the Hills.” This is another of those great bodies of fresh water that lie between the primitive rocks of the “Barren Grounds,” and the more fertile limestone deposit upon the west. It is nearly two hundred miles long from west to east, and is only fifteen miles in breadth, but in some places it is so narrow and full of islands that it looks more like a broad river than a lake. Its shores, and many of its islands, are thickly wooded, particularly upon the southern and western edges; and the eye of the traveller is delighted with many a beautiful vista as he passes along. But our voyageurs took little heed of these things. A gloom had come over their spirits, for one of their party had taken ill, and was suffering from a painful and dangerous disease—an intermittent fever. It was Lucien—he that was beloved by all of them. He had been complaining for several days—even while admiring the fair scenery of the romantic Elk—but every day he had been getting worse, until, on their arrival at the lake, he declared himself no longer able to travel. It became necessary, therefore,

to suspend their journey ; and choosing a place for their camp, they made arrangements to remain until Lucien should recover. They built a small log hut for the invalid, and did every thing to make him as comfortable as possible. The best skins were spread for his couch ; and cooling drinks were brewed for him from roots, fruits, and berries, in the way he had already taught his companions to prepare them. Every day François went forth with his gun, and returned with a pair of young pigeons, or a wood-partridge, or a brace of the beautiful ruffed grouse ; and out of these he would make delicate soups, which he was the better able to do, as they had procured salt, pepper, and other ingredients, at the Fort. They had also brought with them a stock of tea — the real China tea — and sugar ; and as the quantity of both was but small, this luxurious beverage was made exclusively for Lucien, and was found by him exceedingly beneficial during his illness.

To the great joy of all, the invalid was at length restored to health, and the canoe being once more launched and freighted, they continued their journey.

They coasted along the shores of the lake, and entered the Great Slave River, which runs from the Athabasca into the Great Slave Lake. They soon came to the mouth of another large river, called the Peace. This runs into the Great Slave, a short distance below Lake Athabasca, and, strange to say, the sources of the Peace River lie upon the *western* side of the Rocky Mountains, so that this stream actually runs across the mountain-chain ! It passes through the mountains in a succession of deep gorges which

are terrible to behold. On both sides dizzy cliffs and snow-capped peaks rise thousands of feet above its rocky bed, and the scenery is cold and desolate. Its head waters interlock with those of several streams that run into the Pacific; so that, had our voyageurs wished to travel to the shores of that ocean, they might have done so in their birch-bark canoe nearly the whole of the way. But this was not their design at present, so they passed the *débouchure* of the Peace, and kept on for the Great Slave Lake. They were still upon the same water as the Elk; for the Great Slave is only another name for that part of the river lying between the two lakes — Athabasca and Great Slave. Of course the river had now become much larger by the influx of the Peace, and they were travelling upon the bosom of a magnificent stream, with varied scenery upon its banks. They were not so happy, however, as when descending the Elk — not but that they were all in good health, for Lucien had grown quite strong again. No, it was not any want of health that rendered them less cheerful. It was the prospect before them — the prospect of coming winter, which they now felt certain would arrive before they had got to the end of their journey. The delay of nearly a month, occasioned by Lucien's illness, had deranged all their calculations; and they had no longer any hope of being able to finish their voyage in what remained of the short summer. The ice would soon make its appearance; the lakes and rivers would be frozen up; they could no longer navigate them in their canoe. To travel afoot would be a most laborious undertaking, as well as perilous in

an extreme degree. In this way it is only possible to carry a very small quantity of provision — for the traveller is compelled to load himself with skin-clothing in order to keep out the cold. The chances of procuring game by the way, in that season, are precarious, and not to be depended upon. Most of the birds and many of the quadrupeds migrate to more southern regions; and those that remain are shy and rare. Besides, great snow-storms are to be encountered, in which the traveller is in danger of getting “smooored.” The earth is buried under a deep covering of snow, and to pass over this while soft is difficult, and at times quite impossible. All these circumstances were known to our young voyageurs — to Norman better than any of them — and of course the prospect was a cheerless one — much more so than those unacquainted with the winter of these dreary regions would be willing to believe.

It was the month of August, near its end, when they reached the Great Slave Lake, in the latitude of 62°. The days had now become very short, and their journeys grew short in proportion. They already experienced weather as cold as an English winter. There were slight frosts at night — though not yet enough to cover the water with ice — and the mid-day hours were hot, sometimes too hot to be comfortable. But this only caused them to feel the cold the more sensibly when evening set in; and all their robes and skins were necessary to keep them warm during the night.

The Great Slave Lake, like the Athabasca, is very long and very narrow. It extends full 260 miles from

east to west, but at its widest part is not over thirty and in some places much less. Along its northern shores lies the edge of the "Barren Grounds," and there nothing meets the eye but bleak and naked hills of primitive rock. On its southern side the geology is entirely of a different character. There the limestone prevails, and scarcely any thing that deserves the name of hill is to be seen. There are fine forests too, in which poplars, pines, and birches, are the principal trees. The lake is filled with islands, many of which are wholly or partially covered with timber of these kinds, and willows also are abundant. There are fish of several species in its waters, which are in many places of great depth—sixty fathoms deep—and in some of the islands, and around the wooded shores, game exists in abundance in the summer season. Even in winter it is not scarce, but then it is difficult to follow it on account of the deep snow. Many of the animals, too, at this season become torpid, and are of course hidden in caves and hollow trees, and even in the snow itself, where no one can find them. Notwithstanding all this, our voyageurs knew that it would be the best place for them to make their winter camp. They saw that to complete their journey during that season would be impossible. Even had it been a month earlier it would have been a difficult undertaking. In a few days winter would be upon them. They would have to stop somewhere. There was no place where they could so safely stay as by the lake. One thing they would have there, which might not be found so plenty elsewhere; that was wood for their fire; and this was an inducement

to remain by the lake. Having made up their minds, therefore, to encamp on some part of it, they looked from day to day for a place that would be most suitable, still continuing their journey towards its western end. As yet no place appeared to their liking, and as the lake near its western point trends away towards the south, Norman proposed that they should follow the shore no longer, but strike across to a promontory on the northern shore of the lake known as "Slave Point." This promontory is of the limestone formation, and, as Norman had heard, is well wooded, and stocked with game. Even buffaloes are found there. It is, in fact, the farthest point to the north-east that these animals range, and this presents us with a curious fact. It is the farthest point that the limestone deposit extends in that direction. Beyond that, to the east and north, lie the primitive rocks of the Barren Grounds, into which the buffaloes never stray. Thus we observe the connection that exists between the *fauna* of a country and its geological character.

Of course they all agreed to Norman's proposal. The canoe was, therefore, headed for the open waters; and, after a hard day's paddling—for there was a head wind—the voyageurs landed upon a small wooded island, about half way over the lake, where they encamped for the night, intending next day to cross the remaining part.

CHAPTER XXV.

FISHING UNDER THE ICE.

ON awaking next morning, to their great surprise, they saw that the *lake was frozen over!* They had almost anticipated as much, for the night was one of the coldest they had yet experienced — so cold that one and all of them had slept but badly. As yet the ice was thin, but so much the worse. It was thick enough to prevent them from using the canoe, but too thin to bear their weight, and they now saw that they were *prisoners upon the island!*

It was not without some feelings of alarm that they made this discovery; but their fears were allayed by reflecting that they could remain upon the island until the ice either thawed away or became strong enough to bear them, and then they could cross upon it to the northern shore. With this consolation, therefore, they set about making their temporary quarters upon the island as snug as circumstances would permit. Their apprehensions, however, began to return again, when several days had passed over, and the ice neither grew any thinner nor any thicker, but seemed to remain at a stand-still. In the early part of the morning it was almost strong enough to bear them; but during the day the sun melted it, until it was little better than a scum over the surface of the water. The alarm

of our voyageurs increased. Their provisions were nearly out. There was no game on the islet — not so much as a bird — for they had beaten every bush, and found nothing. Once or twice they thought of launching their canoe and breaking a way for it through the ice. But they knew that this proceeding would be one of much labor as well as danger. The islet was full ten miles from the shore, and they would therefore have to break the ice for ten miles. Moreover, to stand up in a bark canoe, so as to get at the work, would be a difficult task. It could not be accomplished without endangering the equilibrium of the vessel, and indeed without upsetting it altogether. Even to lean forward in the bow would be a perilous experiment; and under these considerations the idea of breaking a way was abandoned. But their provisions were at length entirely exhausted, and what was to be done? The ice was still too weak to carry them. Near the shore it might have been strong enough, but farther out lay the danger. There they knew it was thinner, for it had not frozen over until a later period. It would have been madness to have risked it yet. On the other hand, they were starving, or likely to starve from hunger, by staying where they were. There was nothing eatable on the island. What was to be done? In the water were fish — they doubted not that — but how were they to catch them? They had tried them with hook and line, letting the hook through a hole in the ice; but at that late season the fish would not take a bait, and although they kept several continually set, and “looked” them most regularly and assiduously, not a “tail” was taken.

They were about to adopt the desperate expedient, now more difficult than ever, of breaking their way through the ice, when, all at once, it occurred to Norman, that, if they could not coax the fish to take a bait, they might succeed better with a net, and capture them against their will. This idea would have been plausible enough, had there been a net; but there was no net on that islet, nor perhaps within a hundred miles of it. The absence of a net might have been an obstacle to those who are ever ready to despair; but such an obstacle never occurred to our courageous boys. They had two *parchment* skins of the caribou which they had lately killed, and out of these Norman proposed to make a net. He would soon do it, he said, if the others would set to work and cut the deer-skins into thongs fine enough for the purpose. Two of them, therefore, Basil and Lucien, took out their knives, and went briskly to work; while François assisted Norman in twining the thongs, and afterwards held them, while the latter wove and knotted them into meshes. In a few hours both the skins were cut into fine strips, and worked up; and a net was produced nearly six yards in length by at least two in width. It was rude enough, to be sure, but perhaps it would do its work as well as if it had been twined out of silk. At all events, it was soon to have a trial—for the moment it was finished the sinkers were attached to it, and it was carried down to the edge of the water.

The three “Southerners” had never seen a net set under ice—for in their country ice is an uncommon thing, and indeed never freezes of sufficient

thickness to carry the weight of a man. They were therefore very curious to know how the thing was to be done. They could not conceive how the net was to be stretched under the ice, in such a manner as to catch the fish. Norman, however, knew all about it. He had seen the Indians, and had set many a one himself. It was no new thing for him, and he set about it at once.

He first crept out upon the ice to the distance of about twenty or thirty yards from the shore. He proceeded cautiously, as the ice creaked under him. Having arrived at the place where he intended to set the net, he knelt down, and with his knife cut several holes in the ice, at the distance of about six feet from each other, and all in one line. He had already provided himself with a straight sapling of more than six feet in length, to one end of which he had attached a cord. The other end of this cord was tied to the net at one of its corners. He now thrust the sapling through the first hole he had made, and then guided it so as to pass directly under the second. At this hole he took a fresh hold of the stick, and passed it along to the next, and so on to the last, where he pulled it out again, and of course along with it the string. The net was now drawn into the first hole, and by means of the cord already received through, was pulled out to its full length. The sinkers, of course, fell down in the water, and drew it into a vertical position. At both its upper corners the net was made fast above the ice, and was now "set." Nothing more could be done until the fish came into it of their own accord, when it could be drawn out upon the ice by means of

the coil attached ; and, of course, by the same means could easily be returned to its place, and set again.

All of them now went back to the fire, and with hungry looks sat around it, waiting the result. They had made up their minds, should no fish be caught, to get once more into the canoe and attempt breaking their way to the shore. Summoning all their patience, therefore, they waited for nearly two hours, without examining the net. Then Norman and Basil crawled back upon the ice, to see what fortune had done for them. They approached the spot, and, with their hearts thumping against their ribs, untied the knot, and commenced hauling out.

"It certainly feels heavy," said Basil, as the net was being drawn. "Hurrah!" he shouted ; "something kicks ; hurrah !" and with the second "hurrah !" a beautiful fish was pulled up through the hole, and landed upon the ice. A loud "hurrah" was uttered in response by Lucien and François — who, fearing the ice might not bear so many, had remained upon the shore. A yard or two more of the net was cleared, and a second fish still larger than the former was greeted with a general "hurrah !" The two fish were now taken out — as these were all that had been caught — and the net was once more carefully set. Basil and Norman came back to the shore — Norman to receive quite a shower of compliments from his companions. The fish — the largest of which weighed nearly five pounds — proved to be trout ; and it was not long before their quality was put to the proof. All declared they had never eaten so fine trout in their lives ; but when the condition of their appetites

is taken into account, we may infer that there was, perhaps, a little exaggeration in this statement. If hunger really makes good sauce, our voyageurs had the best of sauce with their fish, as each of them was as hungry as a half-famished wolf.

They felt quite relieved, as far as present appetite went, but they were still uneasy for the future. Should they not succeed in taking more fish. — and it was by no means certain they should succeed — they would be no better off than ever. Their anxiety, however, was soon removed. Their second "haul" proved even more successful than the first — as five fish, weighing together not less than twenty pounds, were pulled up.

This supply would enable them to hold out for a long time, but they had not much longer to remain on the islet. Upon that very night there was one of those severe frosts known only in high latitudes, and the ice upon the lake became nearly a foot in thickness. They had no longer any fear of its breaking under their weight; and taking their canoe with all their "traps," they set out to cross over upon the ice. In a few hours they reached the shore of the lake, near the end of the promontory, where they chose a spot, and encamped.

CHAPTER XXVI

AN ODD ALARM.

THE first thing our voyageurs did after choosing a suitable situation, was to build a log-hut. Being young backwoodsmen this was but a trifle to them. All four of them knew how to handle an axe with dexterity. The logs were soon cut and notched, and a small cabin was put up, and roofed with split clapboards. With the stones that lay near the shore of the lake they built a chimney. It was but a rude structure, but it drew admirably. Clay was wanted to "chink" the cabin, but that could not be had, as the ground was hard frozen, and it was quite impossible to make either clay or mud. Even hot water poured out would freeze into ice in a few minutes. This was a serious want—for in such a cold climate even the smallest hole in the walls will keep a house uncomfortable, and to fill the interstices between the logs, so as to make them air-tight, some soft substance was necessary. Grass was suggested, and Lucien went off in search of it. After a while he returned with an armful of half-withered grass, which all agreed would be the very thing; and a large quantity was soon collected, as it grew plentifully at a short distance from the cabin.

They now set to work to stuff it into the chinks

when, to their astonishment, they found that this grass had a beautiful smell, quite as powerful and as pleasant as that of mint or thyme ! When a small quantity of it was flung into the fire, it filled the cabin with a fragrance as agreeable as the costliest perfumes. It was the "scented grass," which grows in great profusion in many parts of the Hudson's Bay territory, and out of which the Indians often make their beds, burning it also upon the fire to enjoy its aromatic perfume.

For the first day or two, at their new abode, the travellers had lived altogether on fish. They had, of course, brought their net with them from the island, and had set it near the shore in the same way as before. They had captured as many as they wanted, and, strange to say, at one haul they found no less than five different species in the net ! One kind, a white fish, the *Coregonus albus* of naturalists, but which is named "tittameg" by the fur-traders, they caught in great plenty. This fish is found in nearly all the lakes and rivers of the Hudson's Bay territory, and is much prized both by whites and Indians for its delicate flavor. At some of the trading posts it often forms, for weeks together, the only food which the residents can obtain ; and they are quite satisfied when they can get enough of it. The tittameg is not a large fish ; the largest attain to the weight of about eight pounds.

There was another and still smaller species, which, from its color, the voyageurs call the "poisson bleu," or blue fish. It is the *Coregonus signifer* of ichthyologists. It is a species of grayling, and frequents

sharp-running water, where it will leap at the fly like a trout. Several kinds of trout also inhabit the Great Slave Lake, and some of these attain to the enormous weight of eighty pounds! A few were caught, but none of so gigantic proportions as this. Pike were also taken in the net, and a species of burbot (*Gadus lota*). This last is one of the most voracious of the finny tribe, and preys upon all others that it is able to swallow. It devours whole quantities of cray-fish, until its stomach becomes crammed to such a degree as to distort the shape of its whole body. When this kind was drawn out, it was treated very rudely by the boys — because its flesh was known to be extremely unsavory, and none of them cared to eat it. Marengo, however, had no such scruples, and he was wont to make several hearty meals each day upon the rejected burbot.

A fish diet exclusively was not the thing; and as our party soon grew tired of it, the hunter Basil shouldered his rifle, and strode off into the woods in search of game. The others remained working upon the cabin, which was still far from being finished.

Basil kept along the edge of the lake in an easterly direction. He had not gone more than a quarter of a mile, when he came upon a dry gravelly ridge, which was thickly covered with a species of pine-trees that resembled the Scotch fir (*Pinus sylvestris*). These trees were not over forty feet in height, with very thick trunks and long flexible branches. No other trees grew among them, for it is the nature of this pine — which was the “scrub” or gray pine (*P. Banksiana*) — to monopolize the ground wherever it grows

As Basil passed on, he noticed that many of the trees were completely "barked," particularly on the branches; and small pieces of the bark lay scattered over the ground, as though it had been peeled off and gnawed by some animal. He was walking quietly on, and thinking what creature could have made such a wreck, when he came to a place where the ground was covered with fine sand or dust. In this, to his astonishment, he observed what he supposed to be the tracks of human feet. They were not those of a man, but small tracks resembling the footsteps of a child of three or four years of age. He was about stooping down to examine them more closely, when a voice sounded in his ears exactly like the cry of a child. This brought him suddenly to an erect attitude again, and he looked all round to discover who or what had uttered that strange cry. He could see no one — child or man — and strange, too, for he had a clear view through the tree-trunks for several hundred yards around. He was filled with curiosity, not unmixed with alarm; and, stepping forward a few paces, he was about to bend down and examine the tracks a second time, when the singular cry again startled him. This time it was louder than before, as if he was closer to whatever had uttered it; but Basil now perceived that it proceeded from above him. The creature from which it came was certainly not upon the ground, but high up among the tops of the trees. He looked up, and there, in the fork of one of the pines, he perceived a singular and hideous-looking animal, such as he had never before seen. It was of a brown color, about the size of a terrier-dog, with thick, shaggy hair, and

clumped up in the fork of the tree, so that its head and feet were scarcely distinguishable. Its odd appearance, as well as the peculiar cry which it had uttered, would have alarmed many a one of less courage than our young hunter, and Basil was at first, as he afterwards confessed, "slightly flurried;" but a moment's reflection told him what the animal was—one of the most innocent and inoffensive of God's creatures—the Canada porcupine. It was this, then, that had barked the scrub pines—for they are its favorite food; and it was its track—which in reality very much resembles that of a child—that Basil had seen in the sand.

The first thought of the young hunter was to throw up his rifle, and send a bullet through the ungainly animal; which, instead of making any effort to escape, remained almost motionless, uttering, at intervals, its child-like screams. Basil, however, reflected that the report of his rifle would frighten any large game that might chance to be near; and as the porcupine was hardly worth a shot, he concluded, upon reflection, it would be better to leave it alone. He knew—for he had heard Lucien say so—that he would find the porcupine at any time, were it a week, or even a month after, for these creatures remain sometimes a whole winter in the same grove. He resolved, therefore, should no other game turn up, to return for it; and, shouldering his rifle again, he continued his course through the woods.

As he proceeded, the timber became thinner. The scrub-pines gave place to poplar-trees, with here and there an undergrowth of willows. The trees stood far

apart, and the willows grew only in clumps or "islands," so that the view was nearly open for many hundred yards around. Basil walked on with all the silence and watchfulness of a true "stail" hunter—for, among backwoodsmen, this species of hunting is so called. He ascended a low hill, and keeping a tree in front of him, looked cautiously over its crest. Before him, and stretching from the bottom of the hill, was a level tract of considerable extent. It was bounded on one side by the edge of the lake, and on all the others by thin woods, similar to those through which the hunter had been for some time travelling. Here and there, over the plain, there stood trees, far apart from each other, and in no wise intercepting the view for a mile or more. The ground was clear of underwood, except along the immediate edge of the lake, which was fringed by a thicket of willows.

As Basil looked over the hill, he espied a small group of animals near the interior border of the willows. He had never seen animals of the same species before, but the genus was easily told. The tall antlered horns, that rose upon the head of one of them, showed that they were deer of some kind; and the immense size of the creature that bore them, together with his ungainly form, his long legs, and ass-like ears, his huge head with its overhanging lip, his short neck with its standing mane, and, above all, the broad palmation of the horns themselves, left Basil without any doubt upon his mind that the animals before him were moose-deer—the largest, and perhaps the most awkward, of all the deer kind. The one with the antlers was the male or bull-moose. The others were the

female and her two calves of the preceding year. The latter were still but half-grown, and, like the female, were without the "branching horns" that adorned the head of the old bull. They were all of a dark-brown color — looking blackish in the distance — but the large one was darker than any of the others.

Basil's heart beat high, for he had often heard of the great moose, but now saw it for the first time. In his own country it is not found, as it is peculiarly a creature of the cold regions, and ranges no farther to the south than the northern edge of the United States territory. To the north it is met with as far as timber grows — even to the shores of the Polar Sea! Naturalists are not certain, whether or not it be the same animal with the elk (*Cervus alces*) of Europe. Certainly the two are but little, if any thing, different; but the name "elk" has been given in America to quite another and smaller species of deer — the wapiti (*Cervus Canadensis*). The moose takes its name from its Indian appellation, "moosöä," or "wood-eater;" and this name is very appropriate, as the animal lives mostly upon the leaves and twigs of trees. In fact, its structure — like that of the camelopard — is such that it finds great difficulty in reaching grass or any other herbage, except where the latter chances to be very tall, or grows upon the declivity of a very steep hill. When it wishes to feed upon grass, the moose usually seeks it in such situations; and it may often be seen browsing up the side of a hill, with its legs spread widely on both sides of its neck. But its favorite food is found at a more convenient height, and

consists of the young shoots of many species of trees. It prefers those of the poplar, the birch-tree, and willows, and one kind of these last, the red willow, is its particular favorite. The "striped" maple (*Acer striatum*) is also much relished by the moose — hence the name "moose-wood," by which this tree is known among the hunters. It loves also the common water-lilies (*Nymphæ*); and in summer it may be seen wading out into lakes, and plucking up their succulent leaves. It takes to the water also for other purposes — to cool its body, and rid itself of several species of gnats and mosquitoes that at this season torment it exceedingly. At such times it is more easily approached; and the Indians hunt it in their canoes, and kill it in the water, both with spears and arrows. They never find the moose, however, in large numbers — for it is a solitary animal, and only associates in pairs during one part of the year, and in families at another season — as Basil now found it. In winter the Indians track it through the snow, following it upon snow-shoes. These give them the advantage of skimming along the surface, while the moose plunges through the deep drift, and is therefore impeded in its flight. Notwithstanding, it will frequently escape from the hunter, after a *chase of several days' duration!* Sometimes, in deep snow, a dozen or more of these animals will be found in one place, where they have got accidentally together. The snow will be trodden down until the place appears as if enclosed by a wall. This the hunters term a "moose-pound," and when found in such situations the moose are easily approached and surrounded — when a general *battue*

takes place, in which few or none of the animals are allowed to escape.

I have said that Basil's heart beat high at the sight of the moose. He was very desirous of killing one — partly on account of the novelty of the thing, and partly because he and his companions at the camp were anxious for a change of diet. Moose-meat was the very thing; and he knew that if he could return to camp with a few pieces of this strung over his gun, he would receive a double welcome. He was well aware that the flesh of the moose was of the most savory and delicate kind, and that the long pendulous upper lip is one of the "titbits" of the fur countries. Moreover, the fine hide would be an acceptable addition to their stock, as it is the best of all deer-skins for moccasins, as well as snow-shoes — articles which Basil knew would soon be needed. For these reasons he was unusually desirous of killing one of the moose.

He knew it would be difficult to approach them. He had heard that they were shyest at that very season — the beginning of winter — and indeed such is the case. No deer is so difficult to get a shot at as a moose in early winter. In summer it is not so — as then the mosquitoes torment these animals to such a degree that they pay less heed to other enemies, and the hunter can more easily approach them. In winter they are always on the alert. Their sense of smell — as well as of sight and hearing — is acute to an extreme degree, and they are cunning besides. They can scent an enemy a long distance off — if the wind be in their favor — and the snapping of a twig, or the slightest rustle of the leaves, is sufficient to start them

off. In their journeyings through the snow, ~~when~~ they wish to rest themselves, they make a sort of *détour*, and, coming back, lie down near the track which they have already passed over. This gives them an opportunity of hearing any enemy that may be following upon their trail, and also of making off in a side-direction, while the latter will be looking steadfastly ahead for them.

Basil had heard of all these tricks of the moose — for many an old moose hunter had poured his tale into Basil's ear. He proceeded, therefore, with all due caution. He first buried his hand in his game-bag, and after a little groping brought out a downy feather which had chanced to be there. This he placed lightly upon the muzzle of his rifle, and having gently elevated the piece above his head, watched the feather. After a moment, the breeze carried it off, and Basil noted the direction it took. This is called, in hunter phrase, "tossing the feather," and gave Basil the exact direction of the wind — an important knowledge in the present case. To Basil's gratification he saw that it was blowing down the lake, and nearly towards himself. He was not exactly to leeward of the moose; but, what was better still, the willows that fringed the lake were, for he could see them bending from the deer, as the breeze blew freshly. He knew he could easily get among the willows; and as they were not yet quite leafless, and, moreover, were interspersed with tall reed grass, they formed a tolerable cover under which he might make his approach.

Without losing time, then, he made for the willows,

and placing them between himself and the game commenced "approaching" along the shore of the lake.

He had a full half-hour's creeping — at one time upon his hands and knees — at another, crawling flat upon his breast like a gigantic lizard, and now and then, at favorable spots, walking in a bent attitude. A full half-hour was he, and much pain and patience did it cost him, before getting within shot. But Basil was a hunter, and knew both how to endure the pain and practise the patience — virtues that, in hunting as well as in many other occupations, usually meet with their reward. And Basil was likely to meet with his, for on parting the leaves, and looking cautiously through, he saw that he had arrived at the right spot. Within fifty yards of him he saw the high shoulders of the bull-moose, and his great flat antlers towering over the tops of the willows, among the leaves of which the snout of the animal was buried. He also caught a glimpse of parts of the other three beyond; but he thought only of the bull, and it was upon him that he kept his eyes fixed. Basil did not think of the quality of the meat, else he would have selected either the cow or one of the calves. Had it been buffaloes he would certainly have done so; but as he had never killed a moose, he was determined to slay the leader of the herd.

Indeed, had he wished to shoot one of the others, it might not have been so easy, as they were farther off, and he could only see the tops of their shoulders over the willows. Neither did the bull offer a fair mark. He stood face to face with the hunter, and

Basil fancied that a shot on the frontal bone might **not** kill him. He knew it would not kill a buffalo. There was only one other part at which he could aim — the fore-shoulder ; and after waiting some moments for the animal to give him a fairer chance, he took aim at this and fired. He heard a loud cracking of hoofs, as the cow and calves shambled off over the plain, but **he** **saw** that the bull was not with them. He was **down** **behind** the willows. No doubt he was **dead**.

CHAPTER XXVII.

ENCOUNTER WITH A MOOSE.

WHAT was a rare thing for Basil to do, he rushed forward without reloading his gun. A few springs brought him into the open ground, and in presence of the game. To his astonishment, the bull was not dead, nor down neither, but only upon his knees — of course wounded. Basil saw the “crease” of the bullet along the neck of the animal as he drew near. It was only by a quick glance that he saw this, for as soon as the bull saw *him* he rose to his full height — his eyes flashing like a tiger’s — and setting his antlers in a forward position, sprang upon the hunter! Basil leaped aside to avoid the encounter; and in the first rush was successful, but the animal turned suddenly, and, coming up a second time, raised his forefeet high in the air, and struck forward with his long-pointed hoofs. Basil attempted to defend himself with his rifle, but the piece was struck out of his hand in an instant. Once more avoiding the forward rush of the infuriated beast, the young hunter looked around for some object to save him. A tree fell under his eye, and he ran towards it with all his speed. The moose followed close upon his heels, and he had just time to reach the tree and get around its trunk, when the animal brushed past, tearing the bark with his

sharp antlers. Basil now slipped round the trunk and when the moose again turned himself the two were on opposite sides of the tree! The beast, however, rushed up, and struck the tree furiously first with his brow antlers, and then with his hoofs, uttering loud snorts, and at intervals a shrill whistling sound that was terrible to hear. The disappointment which the enraged animal felt, at seeing his enemy thus escape him, seemed to have added to his rage; and he now vented his spite upon the tree, until the trunk, to the height of six feet, was completely stripped of its bark. While this was going on, Basil remained behind the tree, "dodging" round as the moose manœuvred, and taking care always to have the animal on the opposite side. To have got into a safer situation he would have climbed the tree; but it happened to be a poplar, without a branch for many feet from the ground, and of too great a girth to be "embraced." He could do nothing, therefore, but remain upon the ground, and keep the tree-trunk between himself and the bull.

For nearly an hour this lasted, the moose now remaining at rest for a few minutes, and then making fresh onsets that seemed to abate nothing in their fury. His rage appeared to be implacable, and his vengeance as tenacious as that of a tiger or any other beast of prey. The wound which the hunter had given him was no doubt painful, and kept his resentment from cooling. Unfortunately, it was not a mortal wound, as Basil had every opportunity of seeing. The bullet had hit the fore-shoulder; but, after tearing along the skin, had glided off without injuring

the bone. It had only enraged the bull, without crippling him in the least degree. Basil began to dread the result. He was becoming faint with fatigue as well as hunger. When would he be relieved? When would the fierce brute feel inclined to leave him? These were questions which the hunter put to himself repeatedly, without being able to divine an answer. He had heard of hunters being killed by wounded moose. He had heard that these creatures will remain for days watching a person whom they may have "treed." He could not stand it for days. He would drop down with fatigue, and then the bull would gore and trample him at pleasure. Would they be able to trace him from the camp? They would not think of that before nightfall. They would not think of him as "lost" before that time; and then they could not follow his trail in the darkness, nor even in the light—for the ground was hard as a rock, and he had made no footmarks. Marengo might trace him. The dog had been left at the camp, as Basil preferred "still-hunting" without him. But in his present situation the hunter's apprehensions were stronger than his hopes. Even Marengo might be baffled in lifting the scent. The trail was an exceedingly devious one, for Basil had meandered round the sides of the hill in search of game. Deer or other animals might have since crossed it, which might mislead the hound. It would be cold at night, and much colder next morning. There were many chances that no relief might reach him from the camp. Impressed with this conviction, Basil began to feel serious alarm. Not despair, however—he was not the boy to despair. His

mind only grew more alive to the necessity for action. He looked around to discover some means of escape. His gun lay not a hundred yards off. Could he only get hold of the piece, and return safely to the tree again, he could there load it and put an end to the scene at once. But to reach the gun was impossible. The moose would bound after and overtake him to a certainty. The idea of getting the gun was abandoned.

In the opposite direction to that in which the gun lay, Basil perceived that there were other trees. The nearest was but a dozen yards from him; and others, again, grew at about the same distance from that one, and from each other. Basil now conceived the idea of escaping to the nearest, and from that to the next, and by this means getting back into the thick forest. Once there, he believed that he would be the better able to effect his escape, and perhaps reach the camp by dodging from tree to tree. He could beat the moose for a dozen yards — getting a little the start of him — and this he hoped to be able to do. Should he fail in his short race, however — should his foot slip — the alternative was fearful. *It was no other than death!*

He knew that, but it did not change his resolution to make the attempt. He only waited for the animal to work round between him and the tree towards which he intended to run. You will wonder that he did not prefer to have the moose on the other side. But he did not, for this reason — had the bull been there, he could have sprung after him at the first start; whereas, when heading the other way, Basil believed he could

brush close past, and gain an advantage, as the unwieldy brute, taken by surprise, would require some time in turning himself to give chase.

The opportunity at length arrived; and nerving himself for the race, the hunter sprang past the moose, brushing the very tips of its antlers. He ran without either stopping or even looking back, until he had reached the tree, and sheltered himself behind its trunk. The moose had followed, and arrived but the moment after, snorting and whistling furiously. Enraged at the *ruse*, it attacked this tree, as it had the other, with hoof and horns; and Basil nimbly evaded both by keeping on the opposite side, as before.

In a few minutes he prepared himself for a second rush, and once more started. A third tree was reached in safety — and then a fourth, and a fifth, and many others, in a similar manner — the moose all the while following in hot pursuit. Basil had begun to hope that in this way he would get off, when, to his chagrin, he saw that an open space still intervened between him and the thick woods, upon which there were only a few trees, and those so small that not one of them would have sheltered him. This tract was full two hundred yards in width, and extended all along the edge of the thick forest. He dared not cross it. The moose would overtake him before he could get half the way; and he was obliged to give up the idea of making the attempt.

As he stood behind the last tree he had reached, he saw that it branched, and the lowest branches grew but a little above his head. He could easily climb it, and at once resolved to do so. He would there be

safe for the time, and could at least rest himself, for he was now weak with fatigue. He, therefore, stretched up his hands, and, laying hold of a branch, swung himself up into the tree. Then climbing up a little higher, he sat down on one of the forks.

The moose appeared as furious as ever; and ran round the tree, now striking it with his horns, and then rearing upon his hind-legs, and pouncing against the trunk with his hoofs. At times his snout was so close to Basil, that the latter could almost touch it; and he had even drawn his hunting-knife, and reached down with the intent of giving the creature a stab.

This last action led to a train of thought, and Basil seemed suddenly to adopt some new resolution. Leaving the fork where he had perched himself, he climbed higher up the tree; and, selecting one of the longest and straightest branches, commenced cutting it off close to the trunk. This was soon effected; and then, drawing it along his knee, he trimmed off all the twigs and tops until the branch became a straight pole, like a spear-handle. Along one end of this he laid the handle of his knife; and with thongs, which he had already cut out of the strap of his bullet-pouch, he spliced the knife and pole together. This gave him a formidable weapon — for the knife was a “bowie,” and had a long blade, with a point like a rapier. He was not slow in using it. Descending again to the lowermost limbs, he commenced making demonstrations, in order to bring the moose within reach. This he very soon succeeded in doing; and the animal ran forward and reared up against the tree. Before it could get upon its four legs again, Basil had thrust it in the neck,



Trial	Control (n=10)	MCI (n=10)	AD (n=10)
1	95	85	75
2	95	85	75
3	95	80	70
4	95	75	65
5	95	75	65

giving full force to the blow. The blood rushed forth in a thick stream, as the jugular vein had been cut by the keen blade ; and the huge brute was seen to totter in its steps, and then fall with a dull heavy sound to the earth. In a few moments the hunter had the satisfaction of perceiving that it was quite dead.

Basil now dropped out of the tree, and walking back to where his rifle lay, took up the piece and carefully reloaded it. He then returned to the moose, and opening the great jaws of the animal, gaged them with a stick. He next unspliced his knife, took off the gristly lips, and cut out the tongue. These he placed in his game-bag, and shouldering his rifle, was about to depart ; when some new idea caused him to halt, put down his gun, and again unsheathe his knife. Once more approaching the carcass, he made an incision near the kidneys ; and having inserted his hand, drew forth what appeared to be a part of the intestines. It was the bladder. He then looked around as if in search of something. Presently his eye rested upon some tall reed-grass that was growing near. This was just what he wanted, and, pulling up one of the stems, he cut and fashioned it into a pipe. With this the moose-bladder was blown out to its full dimensions, and tied at the neck by a piece of thong. The other end of the thong was fastened to one of the branches of the tree above, so that the bladder dangled within a few feet of the carcass of the moose, dancing about with the lightest breath of wind. All these precautions Basil had taken to keep the wolves from devouring the moose — for it was his intention to return and butcher it, as soon as he could get help.

When he had hung the bladder to his liking, he put up his knife again ; and, once more shouldering his rifle, walked off.

On reaching the camp — which he did shortly after — the tongue of the moose was broiled without delay, and, after making a delicious meal of it, the whole party went off for the remainder of the meat. They found it all quite safe ; although, had it not been for the bladder, not much of it would have been there — as no less than a dozen great gaunt wolves were seen lurking about, and these would have eaten it up in the shortest possible time. The bladder, however, had kept them off ; for, strange to say, these creatures, who are as cunning as foxes, and can hardly be trapped, can yet be deceived and frightened by such a simple thing as a bladder dangling from a branch.

The moose proved to be one of the largest of his kind. His height was quite equal to that of a horse ; and his horns, flattened out to the breadth of shovels, weighed over sixty pounds. His carcass was not less than fifteen hundred pounds weight ; and our voyageurs had to make two journeys to convey the meat to their camp. On the last journey, François brought the porcupine as well — having found it on the very same tree where Basil had left it !

CHAPTER XXVIII.

LIFE IN A LOG-HUT.

THE log-hut was finished on the 1st of September, and not a day too soon; for on that very day the winter set in with full severity. A heavy fall of snow came down in the night; and next morning, when our voyageurs looked abroad, the ground was covered to the depth of a foot, or more; and the ice upon the lake was also white. Walking through the great wreaths now became very difficult; and the next thing to be done was the making of "snow-shoes."

Snow-shoes are an invention of the Indians; and, in the winter of the Arctic regions of America, are an article almost as indispensable as clothing itself. Without them, travelling afoot would be impossible. In these countries, as already stated, the snow often covers the ground to the depth of many feet; and remains without any considerable diminution for six, and, in some years, eight or nine months. At times, it is frozen hard enough on the surface to bear a man without the snow-shoes; but oftener, on account of thaws and fresh falls, it becomes quite soft, and at such times travelling over it is both difficult and dangerous. To avoid both the difficulty and the danger, the Indians make use of this very singular

sort of foot-wear — called “snow-shoes” by the English, and “rackets” by the Canadian voyageurs. They are used by all the Indian tribes of the Hudson’s Bay territory; and were it not for them these people would be confined to one place for months together, and could not follow the deer or other game. As almost all savages are improvident, and none more so than the North American Indians, were they prevented for a season from going out to hunt, whole tribes would starve. Indeed, many individuals of them perish with hunger as it is; and the life of all these Indians is nothing more than one continued struggle for food enough to sustain them. In summer they are often in the midst of plenty; slaughtering deer and buffalo by hundreds, taking out only the tongues, and recklessly leaving the flesh to the wolves! In winter the very same Indians may be seen without a pound of meat in their encampment — the lives of themselves and their families depending upon the success of a single day’s hunt!

But let us return to the snow-shoes. Let us see what they are, and learn how they are made.

Any boy who has snared sparrows in snow-time, has, no doubt, done so by tying his snares upon a hoop netted across with twine or other small cord. Now, if he will conceive his hoop bent into an oblong shape — something like what the figure of a boat turned on its mouth would make in snow — and if he will also fancy the netting to consist of thongs of twisted deer-hide woven somewhat closely together, he will get a very good idea of an Indian snow-shoe. It is usually from three to four feet long by about a

foot wide at the middle part, from which it tapers gently to a point, both at the heel and toe. The frame, as I have said, is like the hoop of a boy's bird-snare. It is made of light, tough wood, and, of course, carefully bent and polished with the knife. The slender branches of the "scrub-pine" (*Pinus Banksiana*) are esteemed excellent for this purpose, as their wood is light, flexible, and tough in its fibres. This is also a favorite tree, where it grows, to make tent-poles, canoe-timbers, and other implements required by the Indians; and these people use so much of it for their arrows, that it has received from the Canadian voyageurs the name of *bois de flèche* (arrow-wood).

Well, then, the frame of the snow-shoes being bent to its proper shape, two transverse bars are placed across near the middle, and several inches from each other. They are for the foot to rest upon, as well as to give strength to the whole structure. These being made fast, the netting is woven on, and extends over the whole frame, with the exception of a little space in front of the bars where the ball of the foot is to rest. This space is left free of netting, in order to allow play to the toes while walking. The mesh-work is made of thongs usually cut from the parchment-skin of a deer, and twisted. Sometimes twisted intestines are used, and the netting exactly resembles that seen in "rackets" for ball play.

The snow-shoe, when finished, is simply fastened upon the foot by means of straps or thongs; and a pair of them thus placed, will present a surface to the snow of nearly six square feet — more, if required, by making them larger. But this is enough

to sustain the heaviest man upon the softest snow, and an Indian thus "shod" will skim over the surface like a skater.

The shoes used by all tribes of Indians are not alike in shape. There are fashions and fancies in this respect. Some are made—as among the Chippewa Indians—with one side of the frame nearly straight; and these, of course, will not do for either foot, but are "rights and lefts." Generally, however, the shape is such that the snow-shoe will fit either foot.

The snow-shoes having now become a necessary thing, our young voyageurs set about making a complete set for the whole party—that is, no less than four pairs. Norman was the "shoemaker," and Norman knew how. He could splice the frames, and work in the netting, equal to an Indian squaw. Of course all the others assisted him. Lucien cut the moose-skin into fine regular strips; Basil waded off through the snow, and procured the frames from the wood of the scrub-pine trees, where he had encountered the porcupine; and then he and François trimmed them with their knives, and sweated them in the hot ashes until they became dry, and ready for the hands of the "shoemaker."

This work occupied them several days, and then each had a pair of shoes fitted to his size and weight.

The next consideration was, to lay in a stock of meat. The moose had furnished them with enough for present use, but that would not last long, as there was no bread nor any thing else to eat with it. Persons in their situation require a great deal of meat to sustain them, much more than those who live in great

eties, who eat a variety of substances, and drink many kinds of drinks. The healthy voyageur is rarely without a keen appetite; and meat by itself is a food that speedily digests, and makes way for a fresh meal so that the ration usually allowed to the *employés* of the fur companies would appear large enough to supply the table of several families. For instance, in some parts of the Hudson's Bay territory, the voyageur is allowed eight pounds of buffalo-meat *per diem*! And yet it is all eaten by him, and sometimes deemed barely sufficient. A single deer, therefore, or even a buffalo, lasts a party of voyageurs for a very short time, since they have no other substance, such as bread or vegetables, to help it out. It was necessary, then, that our travellers should use all their diligence in laying up a stock of dried meat, before the winter became too cold for them to hunt. There was another consideration — their clothing. They all had clothing sufficient for such weather as they had yet experienced; but that would never do for the winter of the Great Slave Lake, and they knew it. Many deer must be killed, and many hides dressed, before they could make a full set of clothing for all, as well as a set of deer-skin blankets, which would be much needed.

As soon as the snow-shoes were finished, therefore, Basil and Norman went out each day upon long hunting expeditions, from which they rarely returned before nightfall. Sometimes they brought with them a deer, of the caribou or reindeer species, and the "woodland" variety, which were plenty at this place. They only carried to camp the best parts with the skin, as the flesh of the woodland caribou is not much

esteemed. It is larger than the other kind—the “Barren Ground caribou,” weighing about one hundred and fifty pounds; but both its venison and hide are of inferior quality to those of the latter species. Sometimes our hunters killed smaller game; and on several occasions they returned without having emptied their guns at all. But there was one day that made up for several—one grand day when they were extremely successful, and on which they killed a whole herd of moose, consisting of five individuals—the old bull, a spike buck—that is, a young buck, whose horns had not yet got antlers upon them—the cow, and two calves. These they had tracked and followed for a long distance, and had succeeded, at length, in running into a valley where the snow was exceedingly deep, and where the moose became entangled. There had been a shower of rain the day before that had melted the surface of the snow; and this had again frozen into an icy crust, upon which the deer lacerated their ankles at every plunge, leaving a track of blood behind them as they ran. Under these circumstances they were easily trailed, and Basil and Norman, skimming along upon their snow-shoes, soon came up with them, and shot first one and then another, until the whole herd were stretched in the valley. They then butchered them, and hung the hides and quarters upon high branches, so as to secure them from wolves and wolverenes. When the job was finished, the whole place looked like a great slaughter-yard! Next day a rude sledge was constructed; and the voyageurs, returning in full force, transported the meat to camp. Huge fires were kindled outside the

hut, and several days were spent in cutting up and drying the flesh. Had our travellers been certain that the frost would have continued all winter, this would not have been necessary — since the meat was already frozen as hard as a brick. But they knew that a sudden thaw would spoil it; and, as there was plenty of good firewood on the spot, they were not going to run the risk of losing it in that way.

They had now enough provision to last them for months; and hunting became no longer necessary, except to obtain fresh meat — which was, of course, preferable to the dry stock. Hunting, also, gave them exercise and amusement — both of which were necessary to their health; for to remain idle and inactive in a situation such as that in which they were placed is the worst possible plan, and is sure to engender both sickness and *ennui*. Indeed, the last grew upon them, notwithstanding all the pains they took to prevent it. There were days on which the cold was so extreme that they could not put their noses out of the door without the danger of having them frost-bitten — although each had now a complete suit of deer-skin clothing, made by Lucien, the “tailor” of the party. Upon such days they were fain to remain shut up in their hut; and, seated around their huge log-fire, they passed the time in cleaning their guns, mending their nets, stitching their clothes, and such like employments. These days were far from being their dullest; for, what with the varied and scientific knowledge of Lucien, which he took pleasure in imparting to his companions — what with the practical experience of Norman amid scenes of Arctic life, and the many

"voyageur tales" he could tell — what with François merry jokes and *bon mots* — and what with Basil's talent for listening — not the least important element in a good *conversazione* — our quartette of young voyageurs found their in-door days any thing but dull.

This was all well enough for a while. For a month or two they bore their odd kind of life cheerfully enough; but the prospect of nearly six months more of it began to appall them, when they reflected upon it, and they soon found themselves longing for a change. Hunting adventures, that at other times would have interested them, now occurred without creating any excitement; and the whole routine of their employments seemed monotonous. Nearly all of them were boys of an active character of mind; and most of them were old enough to reason about the value of time. Their idea of such a long isolation from civilized life, and, above all, the being debarred from following any useful pursuit, began to impress some of them forcibly. Others, as François, could not be contented for a very great stretch of time with any sort of life; so that all of them began to sigh for a change.

One day, while conversing upon this theme, a bold proposal was made by Basil. It was that they should "strike camp," and continue their journey. This proposal took the others by surprise, but they were all just in the frame of mind to entertain and discuss it; and a long consultation was held upon the point. François chimed in with the proposal at once; while Lucien, more cautious, did not exactly oppose, but rather offered the reasons that were against it, and

pointed out the perils of the undertaking. Norman, of course, was appealed to — all of them looking to him as one whose advice, upon that question at least, was more valuable than their own.

Norman admitted the dangers pointed out by Lucien, but believed that they might overcome them by a proper caution. On the whole, Norman approved of the plan, and it was at length adopted. Perhaps Norman's habitual prudence was to some extent influenced on this occasion by the very natural desire he had of returning to what he considered his home. He had now been absent nearly two years, and was desirous of once more seeing his father and his old companions at the Fort. There was another feeling that influenced nearly all of them : that was *ambition*. They knew that to make such a journey would be something of a feat, and they wished to have the credit of performing it. To minds like that of Basil, even the danger had something attractive in it. It was resolved then to break up the encampment, and continue their journey.

CHAPTER XXIX.

TRAVELLING ON SNOW-SHOES

ONCE their resolution was taken, they lost but little time in making preparations to carry it out. Most of the articles required for such a journey were already in their hands. They had the proper dresses — snow-shoes, skin-blankets, and gloves. They had prepared for themselves sets of “snow-spectacles.” These were made out of red cedar-wood. Each pair consisted of two small thin pieces, that covered the eyes, joined together and fastened on by thongs of buckskin. In each piece an oblong slit served for the eye-hole, through which the eye looked without being dazzled by the snow. Without this, or some like contrivance, travelling in the Arctic regions is painful to the eyes, and the traveller often loses his sight. Indeed, one of the most common infirmities of both the Indians and Esquimaux of these parts is blindness or soreness of the eyes, caused by the reflection of the sunbeams from the crystals of the frozen snow. Norman was aware of this, and had made the spectacles to guard against this peril. Out of their spare skins they had made a small tent. This was to be carried along by Marengo in a light sledge, which they had long since constructed, and taught the dog to draw. Nothing else remained but to pack their provisions in the

smallest bulk possible, and this was done, according to the custom of the country, by making "pemmican." The dry meat was first pounded until it became a powder; it was then put into small skin bags, made for the purpose, and the hot melted fat was poured in and well mixed with it. This soon froze hard, and the mixture — that resembled "potted meat" — was now ready for use, and would keep for an indefinite time without the least danger of spoiling. Buffalo-beef, moose-meat, or venison of any sort, thus prepared, is called "*pemmican*," and is more portable in this shape than any other. Besides, no further cooking is required — an important consideration upon those vast prairie deserts, where fire-wood is seldom to be procured without the trouble of carrying it a great distance.

Norman, who was the maker of the pemmican, had produced a superior article upon this occasion. Besides the pounded meat and fat, he had mixed another ingredient with it, which rendered it a most delicious food. This third ingredient was a small purple-colored berry — of which we have already spoken — not unlike the whortleberry, but sweeter and of a higher flavor. It grows through most of the northern regions of America; and in some places, as upon the Red River and the Elk, the bushes that produce it are seen in great plenty. When in flower, they appear almost white, so thickly are they covered with blossoms. The leaves are small, and generally of an oval shape; but there are several varieties of the bush, some of them having the dimensions and form of trees, of twenty-five feet in height. The berries have

received different names in different parts of America. They are known as "shad-berries," "June-berries," "service-berries," and by the Canadian voyageurs they are called "le poire." Even the botanists have given them a great variety of names, as *pyrus*, *mespilus*, *aronia*, *cratægus*, and *amelanchier*. No matter which may be the best name, it is enough to know that these little berries are delicious to eat when fresh, and when dried, after the manner of currants, are excellent to mix in puddings, as well as in pemmican.

Previous to the setting in of winter, our voyageurs had collected a large bag-full upon the banks of the Elk, which they had dried and stored away — expecting to stand in need of them for this very purpose. They now came into use, and enabled Norman to make his pemmican of the very choicest quality. Five bags of it were put up, each weighing over thirty pounds. One of these was to be drawn upon the sledge, along with the tent, the axe, and a few other articles. The rest were to be carried by the voyageurs themselves — each shouldering one, which, along with their guns and accoutrements, would be load enough.

These arrangements being at length complete, the party bade adieu to their log-hut — gave a parting look to their little canoe, which still rested by the door — and then, shouldering their guns and bags of pemmican, set out over the frozen surface of the snow.

Of course before starting they had decided upon the route they were to take. This decision, however, had not been arrived at until after much discussion. Lucien advised that they should follow the shore of the

lake until they should reach the Mackenzie River — which of course was now frozen up. Its channel, he argued, would then guide them; and, in case their provisions should run short, they would be more likely to find game upon its banks than elsewhere, as these were wooded almost to the sea — in consequence of its head waters rising in southern latitudes, and carrying with them a warmer climate.

There was plausibility in Lucien's argument, combined with much prudence. Norman, however, advised a contrary course. He said that they would have to make a considerable journey westward before reaching the place where the Mackenzie River flows out of the lake; and, moreover, he knew that the river itself was very crooked — in some places winding about in great curves, whose ends come near meeting each other. Should they keep the course of the river, Norman believed it would almost double their journey. A much shorter route, he said, would be obtained by striking across the country in a north-westerly direction, so as to reach the Mackenzie near where another great stream — the River of the Mountains — empties into it from the west. This would certainly be a more direct route, and they would avoid the windings of the river channel.

Norman's reasoning prevailed. Basil and François readily agreed to his plan, and Lucien at length also gave his assent, but with some reluctance. Norman knew nothing whatever of the route he was advising them to take. His former journeys up and down the Mackenzie had been made in summer, and of course he had travelled by canoe, in company with

the traders and voyageurs. He only knew that to strike across the country would be the shorter way. But "the shortest way is not always the nearest," says the proverb; and although Lucien remembered this prudent maxim, the others did not give it a thought. Before the end of their journey they received a practical lesson of its wisdom — a lesson they were not likely to forget. But they knew not what was before them, and they started off in high spirits.

Their first three or four days' journeys were without any event worth being chronicled. They travelled full twenty miles each day. The Southerners had become quite skilful in the management of their snow-shoes, and they skimmed along upon the icy crust at the rate of three or four miles an hour. Marengo and his sledge gave them very little trouble. There was full sixty pounds weight upon it; but to the huge dog this was a mere bagatelle, and he pulled it after him without any great strain. His harness was neatly made of moose-skin, and consisted of a collar with a back strap and traces — the traces meeting behind, where they were attached to the head of the sledge. No head-gear was necessary, as Marengo needed not to be either led or driven. The sledge consisted of two or three light planks of smooth wood, laid alongside each other, and held together by transverse bands. In front it turned up with a circular sweep, so as not to "plough" the snow; and at the top of this curved part the traces were adjusted. The load was, of course, carefully packed and tied, so that the overturning of the vehicle did no damage

whatever and it could be easily righted again. Ma-
rengo required no one to guide him, but followed
quietly in the tracks of the snow-shoes, and thus
avoided the trees, rocks, and other inequalities. If a
rabbit or other creature started up, Marengo knew
better than to go galloping after it; he felt that he
had a more important duty to perform than to throw
away his time upon rabbit-hunting. Each night a
spot was chosen for the camp by the side of some
lake or stream, where wood could be obtained for
their fire. Water was got by breaking a hole in the
ice, and the little tent was always set up in a shel-
tered situation.

Upon the fifth day after leaving the log-hut the
woods began to grow thinner and more straggling;
and towards night of the same day they found them-
selves travelling through a country, where the timber
only grew here and there in small clumps, and the in-
dividual trees were small and stunted. Next day still
less timber was seen upon their route; and when
camping-time came, they were obliged to halt at a
spot where nothing but willows could be procured for
their fire. They had, in fact, arrived upon the edge
of that vast wilderness, the Barren Grounds, which
stretches in all its wild desolation along the northern
half of the American continent (from the Great Slave
Lake even to the shores of the Arctic Sea on the
north, and to those of Hudson's Bay on the east).
This territory bears an appropriate name, for, per-
haps, upon the whole surface of the earth there is no
tract more barren or desolate—not even the Saära
of Africa. Both are deserts of immense extent,

equally difficult to cross, and equally dangerous to the traveller. On both the traveller often perishes, but from different causes. On the Saära it is *thirst* that kills; upon the Barren Grounds *hunger* is more frequently the destroyer. In the latter there is but little to be feared on the score of water. That exists in great plenty; or where it is not found, snow supplies its place. But there is water every where. Hill succeeds hill, bleak, rocky, and bare. Every where granite, gneiss, or other primitive rocks, show themselves. No vegetation covers the steep declivities of the hills, except the moss and lichen upon the rocks, a few willows upon the banks of streams, the dwarf birch-tree (*Betula nana*), or the scrub-pines, rising only to the height of a few inches, and often straggling over the earth like vines. Every hill has its valley, and every valley its lake — dark, and deep, and silent — in winter scarce to be distinguished under the snow-covered ice. The prospect in every direction exhibits a surface of rocks, or bleak hills, half covered with snow. The traveller looks around and sees no life. He listens and hears no sound. The world appears dead and wrapped in its cold winding-sheet!

Amidst just such scenes did our voyageurs find themselves on the seventh day after parting from the lake. They had heard of the Barren Grounds, — had heard many fearful stories of the sufferings of travellers who had attempted to cross them; but the description had fallen far short of the actual reality. None of them could believe in the difficulties to be encountered, and the desolateness of the scene they were to witness, until now that they found themselves in its midst.

and, as they proceeded on their journey, getting farther and farther from the wooded region, their apprehensions, already aroused by the wild aspect of the country, grew stronger and stronger. They began to entertain serious fears, for they knew not how far the barren tract extended along their route. On calculation they found they had provisions enough to last them for a month. That in some measure restored their confidence; but even then, they could not help giving way to serious reflections. Should they get lost or retarded in their course by mountains, or other obstacles, it might take them longer than a month to reach some place where game was to be met with. Each day, as they advanced, they found the country more hilly and difficult. Precipices often bounded the valleys, lying directly across their track; and as these could not be scaled, it was necessary to make long *détours* to pass them, so that some days they actually advanced less than five miles upon their journey.

Notwithstanding these impediments, they might still have got over the Barren Grounds without further suffering than the fatigue and necessary exposure to cold; but at this time an incident occurred, that not only frustrated all their calculations, but placed them in imminent danger of perishing.

CHAPTER XXX.

THE BARREN GROUNDS.

THE Barren Grounds are not entirely destitute of animal life. Even in winter — when they are almost covered with snow, and you would suppose that no living creature could procure subsistence upon them — even then they have their denizens ; and, strange to say, there are many animals that choose them for their home. There is no part of the earth's surface so sterile but that some animated being can find a living upon it, and such a being Nature adapts to its peculiar situation. For instance, there are animals that prefer the very desert itself, and would not thrive were you to place them in a country of mild climate and fertile soil. In our own species this peculiarity is also found — as the Esquimaux would not be happy were you to transplant him from his icy hut amidst the snows of the Arctic regions, and give him a palace under the genial skies of Italy.

Among other creatures that remain all winter upon the Barren Grounds are the wolves. How they exist there is almost a question of the naturalists. It is true they prey upon other animals found at times in the same district ; but wolves have been met with where not the slightest traces of other living creatures could be seen !

There is no animal more generally distributed over the earth's surface than the wolf. He exists in nearly every country, and most likely has at one time existed in all. In America there are wolves in its three zones. They are met with from Cape Horn to the farthest point northward that man has reached. They are common in the tropical forests of Mexico and South America. They range over the great prairies of the temperate zones of both divisions of the continent, and in the colder regions of the Hudson's Bay territory they are among the best known of wild animals. They frequent the mountains, they gallop over the plains, they skulk through the valleys, they dwell every where — every where the wolf seems equally at home. In North America two very different kinds are known. One is the "prairie" or "barking" wolf, which we have already met with and described. The other species is the "common" or "large" wolf; but it is not decided among naturalists that there are not several distinct species of the latter. At all events, there are several *varieties* of it — distinguished from each other in size, color, and even to some extent in form. The habits of all, however, appear to be similar, and it is a question, whether any of these varieties be *permanent* or only *accidental*. Some of them, it is well known, are accidental — as wolves differing in color have been found in the same litter — but late explorers, of the countries around and beyond the Rocky Mountains, have discovered one or two kinds that appear to be specifically distinct from the common wolf of America — one of them, the "dusky wolf," being much larger.

This last is said to resemble the wolf of Europe (the Pyrenean wolf, *Canis lupus*) more than the other American wolves do — for there is a considerable difference between the wolves of the two continents. Those of the northern regions of America have shorter ears, a broader snout and forehead, and are of a stouter make, than the European wolves. Their fur, too, is finer, denser, and longer; their tails more bushy and fox-like; and their feet broader. The European wolf, on the contrary, is characterized by a gaunt appearance, a pointed snout, long jaws, high ears, long legs, and feet very narrow. It is possible, notwithstanding these points of difference, that both may be of the same species, the difference arising from a want of similitude in the circumstances by which they are surrounded. For instance, the dense wool of the Hudson's Bay wolf may be accounted for by the fact of its colder habitat, and its broader feet may be the result of its having to run much upon the surface of the snow. The writer of this little book believes that this peculiar adaptation of Nature — which may be observed in all her kingdoms — may explain the difference that exists between the wolves of the northern parts of America and those of the south of Europe. He believes, moreover, that those of the southern parts of the American continent approximate more nearly to the Pyrenean wolves, as he has seen in the tropical forests of Mexico some that possessed all that "gaunt" form and "sneaking" aspect that characterize the latter. It would be interesting to inquire whether the wolves of Siberia and Lapland, inhabiting a similar climate to that of the northern parts of

America, do not possess the same peculiarities as the North American kind—a point which naturalists have not yet considered, and which you, my boy reader, may some day find both amusement and instruction in determining for yourself.

With regard to color the wolves of both continents exhibit many varieties. In North America there are more than half-a-dozen colors of them, all receiving different names. There is the “gray wolf,” the “white,” the “brown,” the “dusky,” the “pied,” and the “black.” These trivial names will give a good enough idea of the colors of each kind, but there are even varieties in their markings. “Yellow” wolves, too, have been seen, and “red” ones, and some of a “cream color.” Of all these the gray wolf is the most common, and is *par excellence the wolf*; but there are districts in which individuals of other colors predominate. Wolves purely black are plenty in many parts, and white wolves are often seen in large packs.

Even those of the same color differ in size, and that to a considerable extent. And, what is also strange, large wolves will be found in one district of country, while much smaller ones *of the same color and species* inhabit another. The largest in size of American wolves are about six feet in length, the tail included; and about three feet in height, measuring to the tips of the standing fur. The tail is usually about one-third of the whole length.

The habits of the American wolf are pretty much like those of his European cousin. He is a beast of prey, devouring all the smaller animals he can lay

hold of. He pursues and overtakes the deer, and often runs down the fox and makes a meal of it. He will kill and eat Indian dogs, although these are so near his own species that the one is often taken for the other. But this is not all, for he will even eat his own kind, on a pinch. He is as cunning as the fox himself, and as cowardly; but at times, when impelled by hunger, he becomes bolder, and has been known to attack man. Instances of this kind, however, are rare.

The American wolves burrow, and, like the fox, have several entrances to their holes. A litter of young wolves numbers five puppies, but as many as eight are often produced at one birth.

During their journey through the Barren Grounds our voyageurs had frequently observed wolves. They were mostly gray ones, and of great size, for they were travelling through a district where the very largest kind is found. At times they saw a party of five or six together; and these appeared to be following upon their trail—as each night, when they came barking about the camp, our travellers recognized some of them as having been seen before. They had made no attempt to shoot any of them—partly because they did not want either their skins or flesh, and partly because their ammunition had been reduced to a small quantity, and they did not wish to spend it unnecessarily. The wolves, therefore, were allowed to approach very near the camp, and howl as much as they liked—which they usually did throughout the livelong night. What they found to allure them after our travellers, the latter could not make out; as they

had not shot an animal of any kind since leaving the lake, and scarcely a scrap of any thing was ever left behind them. Perhaps the wolves were *living upon hope*.

One evening our travellers had made their camp on the side of a ridge — which they had just crossed — and under the shelter of some rough rocks. There was no wood in the neighborhood wherewith to make a fire; but they had scraped the snow from the place over which their tent was pitched, and under it their skins were spread upon the ground. As the tent was a very small one, Marengo's sledge, with the utensils and pemmican bags, was always left outside close by the opening. Marengo himself slept there, and that was considered sufficient to secure all these things from wolves, or any other creatures that might be prowling about.

On the evening in question, the sledge was in its usual place — the dog having been taken from it — and as our voyageurs had not yet had their supper, the pemmican bags were lying loosely about, one or two of them being open. There was a small rivulet at the foot of the ridge — some two hundred paces distant — and Basil and François had gone down to it to get water. One of them took the axe to break the ice with, while the other carried a vessel. On arriving near the bank of the rivulet, the attention of the boys was attracted to a singular appearance upon the snow. A fresh shower had fallen that morning, and the surface was still soft, and very smooth. Upon this they observed double lines of little dots, running in different directions, which, upon close inspection,

appeared to be the tracks of some animal. At first, Basil and François could hardly believe them to be such, the tracks were so very small. They had never seen so small ones before — those of a mouse being quite double the size. But when they looked more closely at them, the boys could distinguish the marks of five little toes with claws upon them, which left no doubt upon their minds that some living creature, and that a very diminutive one, must have passed over the spot. Indeed, had the snow not been both fine-grained and soft, the feet of such a creature could not have made any impression upon it.

The boys stopped and looked around, thinking they might see the animal itself. There was a wide circle of snow around them, and its surface was smooth and level; but not a speck upon it betrayed the presence of any creature.

"Perhaps it was a bird," said François, "and has taken flight."

"I think not," rejoined Basil. "They are not the tracks of a bird. It is some animal that has gone under the snow, I fancy."

"But I see no hole," said François, "where even a beetle could have gone down. Let us look for one."

At François' suggestion, they walked on following one of the dotted lines. Presently they came to a place, where a stalk of long grass stood up through the snow — its seedless panicle just appearing above the surface. Round this stalk a little hole had been formed — partly by the melting of the snow, and partly by the action of the wind upon the panicle — and into this hole the tracks led. It was evident that

the animal, whatever it was, must have gone down the culm of the grass in making its descent from the surface of the snow! They now observed another track going *from* the hole in an opposite direction, which showed that the creature had climbed up in the same way. Curious to know what it might have been, the boys hailed Lucien and Norman, telling them to come down. These, followed by Marengo, soon arrived upon the spot. When Lucien saw the tracks, he pronounced them at once to be those of the little shrew-mouse (*Sorex parvus*), the smallest of all the quadrupeds of America. Several of them had evidently been out upon the snow—as there were other dotted lines—and the tops of many stalks of grass were seen above the surface, each of which had formed a little hole around it, by which the mice were enabled to get up and down.

Norman, who had seen these little animals before, cautioned his companions to remain quiet a while, and perhaps some of them might come to the surface. They all stopped therefore, and stood some time without moving, or speaking to one another. Presently, a little head not much bigger than a pea was seen peeping up, and then a body followed, which in size did not exceed that of a large gooseberry! To this a tail was suspended, just one inch in length, of a square shape, and tapering from root to point, like that of any other mouse. The little creature was covered with a close smooth fur, of a clove-brown color above, but more yellowish upon the belly and sides; and was certainly, as it sat upon the even surface of the snow, the most diminutive and oddest.

looking quadruped that any of the party had ever beheld.

They were just whispering to one another what means they should use to capture it, when Marengo, whom Basil had been holding quiet, all at once uttered a loud bay; and, springing out of the hands of his master, galloped off towards the camp. All of them looked after, wondering what had started the dog; but his strange behavior was at once explained, and to their consternation. Around the tent, and close to its entrance, several large wolves were seen. They were leaping about hurriedly, and worrying some objects that lay upon the ground. What these objects were was too plain. They were *the bags of pemmican!* Part of their contents were seen strewed over the snow, and part was already in the stomachs of the wolves.

The boys uttered a simultaneous shout, and ran forward. Marengo was by this time among the wolves, and had set fiercely upon one of them. Had his masters not been at hand, the fierce brutes would soon have settled the account with Marengo. But the former were now close by, and the wolves, seeing them, ran off; but, to the consternation of the boys, each of them carried off a bag of the pemmican in his mouth with as much lightness and speed as if nothing encumbered them!

"We are lost!" cried Norman, in a voice of terror "Our provisions are gone! — all gone!"

It was true. The next moment the wolves disappeared over the summit of the ridge; and although each of the boys had seized his gun, and ran after

the pursuit proved an idle one. Not a wolf was overtaken.

Scarce a scrap of the pemmican had been left — only some fragments that had been gnawed by the ravenous brutes, and scattered over the snow. That night our travellers went to bed supperless ; and, what with hunger, and the depression of spirits caused by this incident, one and all of them kept awake nearly the whole of the night.

CHAPTER XXXI.

THE ROCK-TRIPE.

THEY left their skin-couch at an early hour, close after daybreak. Hunger and anxiety drove them out of their tent. Not a morsel of any thing for breakfast! They looked abroad over the country, in order, if possible, to descry some living creature. None could be seen — nothing but the wilderness waste of snow, with here and there the side of a steep hill, or a rock showing cold and bleak. Even the wolves that had robbed them were no longer to be seen, as if these creatures knew that they had got all that was worth having, and had now taken themselves off to hunt for plunder elsewhere.

The situation of our travellers was really one of extreme peril, although it may be difficult for you, young reader, to conceive why it should be so. They, however, knew it well. They knew that they might travel for days through that inhospitable region, without falling in with any thing that would make a single meal for them. But less time than that would suffice to starve them all. Already they felt the pangs of hunger — for they had not eaten since their breakfast of the preceding day, the wolves having interrupted their preparations for dinner.

It was of no use remaining where they were; so,

striking their tent once more, they travelled forward. It was but poor consolation to them that they travelled much lighter than before. They had nothing to carry but their guns, and these they had got ready for work — so that their journey partook somewhat of the character of a hunting excursion. They did not even follow a direct course, but occasionally turned to one side or the other, wherever a clump of willows, or any other roughness on the ground, looked like it might be the shelter of game. But during that whole day — although they travelled from near sunrise to sunset — not a living thing was seen ; and for the second night they went supperless to bed.

A man will bear hunger for many days — some more, some less — without actually dying of it ; but at no period will his sufferings be greater than during the third or fourth day. He will grow more feeble afterwards, but the pain which he endures will not be greater.

On the third day the sufferings of our party were extreme. They began to chew pieces of their skin-tent and blankets ; but although this took the sharp edge off their appetites, it added nothing to their strength ; and they still craved for food, and grew feebler.

To use a poetical phrase, Marengo now became the "cynosure of every eye." Marengo was not very fat. The sledge and short rations had thinned him down, and his ribs could be easily traced. Although the boys, and Basil in particular, would have suffered much before sacrificing him, yet starvation will reconcile a man to part with his best friend. In spite of

their friendship for Marengo, his masters could not help scanning him from time to time with hungry looks. Marengo was an old dog, and, no doubt, as tough as a piece of tan-leather; but their appetites were made up for any thing.

It was near midday. They had started early, as on the day before. They were trudging wearily along, and making but little progress. Marengo was struggling with his sledge, feeble as any of the party. Basil saw that the eyes of his companions were from time to time bent upon the dog; and though none of them said any thing, he understood the thoughts that were passing within them. He knew that none of them wished to propose it — as Basil was the real master of Marengo — but their glances were sufficiently intelligible to him. He looked at the downcast countenance of the once merry François, — at the serious air of Norman — at the wan cheek and sunken eye of Lucien, whom Basil dearly loved. He hesitated no longer. His duty to his companions at once overcame his affection for his faithful dog.

“We must kill *him!*” said he, suddenly stopping, and pointing to Marengo.

The rest halted.

“I fear there’s no help for it,” said Norman, turning his face in every direction, and sweeping the surface of the snow with hopeless glances.

François also assented to the proposal.

“Let us make a condition,” suggested Lucien; “I for one could walk five miles farther.” And as Lucien said this, he made an effort to stand erect, and look strong and brave; but Basil knew it was an effort of generosity.

"No," said he, — "no dear Luce. You are done up. We must kill the dog!"

"Nonsense, Basil, you mistake," replied the other; "I assure you I am far from being done up. I could go much farther yet. Stay!" continued he, pointing ahead; "you see yonder rocks? They are about three miles off, I should think. They lie directly in our course. Well, now, let us agree to this condition. Let us give poor Marengo a chance for his life. If we find nothing before reaching those rocks, why then ——"

And Lucien, seeing Marengo gazing up in his face, left the sentence unfinished. The poor brute looked up at all of them as though he understood every word that they were saying; and his mute appeal, had it been necessary, would not have been thrown away. But it did not require that to get him the proposed respite. All agreed willingly with Lucien's proposition; and, shouldering their pieces, the party moved on.

Lucien had purposely understated the distance to the rocks. It was five, instead of three miles; and some of them made it full ten, as they were determined Marengo should have the benefit of every chance. They deployed like skirmishers; and not a brake or brush that lay to the right or left of the path but was visited and beaten by one or other of them. Their diligence was to no purpose. After two hours' weary work, they arrived among the rocks, having seen not a trace of either quadruped or bird.

"Come!" cried Lucien in his now feeble voice, still trying to look cheerful, "we must pass through them

There is a chance yet. Let him have fair play. The rocks were to be the limit, but it was not stated what part of them. Let us pass through to the other side — they do not extend far."

Encouraged by the words of Lucien, the party entered among the rocks, moving on separate paths. They had gone only a few paces, when a shout from Norman caused the rest to look to him for an explanation. No animal was in sight. Had he seen any? No; but something that gratified him certainly, for his voice and manner expressed it.

"What is it?" inquired the others, all speaking at the same time.

"*Tripe de roche!*" answered he.

"*Tripe de roche?*"

"Yes," replied Norman, "look there!" and he pointed to one of the rocks directly ahead of them, at the same time moving forward to it. The others hastened up after. On reaching the rock, they saw what Norman had meant by the words *tripe de roche* (rock-tripe). It was a black, hard, crumply substance, that nearly covered the surface of the rock, and was evidently of a vegetable nature. Lucien knew what it was as well as Norman, and joy had expressed itself upon his pale cheeks at the sight. As for Basil and François they only stood waiting an explanation, and wondering what value a quantity of "rock moss," as they deemed it, could be to persons in their condition. Lucien soon informed them that it was not a "moss," but a "lichen," and of that celebrated species which will sustain human life. It was the *Gyrophora*. Norman confirmed Lucien's statement, and furthermore

affirmed that not only the Indians and Esquimaux, but also parties of voyageurs, had often subsisted upon it for days, when they would otherwise have starved. There are many species, — not less than five or six. All of them possess nutritive properties, but only one is a palatable food — the *Gyrophora vellea* of botanists. Unfortunately, this was not the sort which our voyageurs had happened upon, as it grows only upon rocks shaded by woods, and is rarely met with in the open barrens. The one, however, which Norman had discovered was the “next best,” and they were all glad at finding even that.

The first thing to be thought of was to collect it, and all four set to peeling and scraping it from the rocks. The next thought was to make it ready for eating. Here a new difficulty stared them in the face. The *tripe de roche* had to be boiled, — it could not be eaten else, — and where was the fire? where was the wood to make one? Not a stick was to be seen. They had not met with a tree during all that day's journey.

They were now as badly off as ever. The *tripe de roche* would be of no more use to them than so much dry grass. What could they do with it?

In the midst of their suspense, one of them thought of the sledge — Marengo's sledge. That would make a fire, but a very small one. It might do to cook a single meal. Even that was better than none. Marengo was not going to object to the arrangement. He looked quite willing to part with the sledge. But a few hours before, it came near being used to cook Marengo himself. He was not aware of that, perhaps, but no matter. All agreed that the sledge must be broken up, and converted into firewood.

They were about taking it to pieces, and had already "unhitched" Marengo from it, when Basil, who had walked to the other side of the rocky jumble, cried back to them to desist. He had espied some willows at no great distance. Out of these a fire could be made. The sledge, therefore, was let alone for the present. Basil and François immediately started for the willows, while Norman and Lucien remained upon the spot to prepare the "tripe" for the pot.

In a short time the former parties returned with two large bundles of willows, and the fire was kindled. The *tripe de roche*, with some snow — for there was no water near — was put into the pot, and the latter hung over the blaze.

After boiling for nearly an hour, the lichen became reduced to a soft gummy pulp, and Norman thickened the mess to his taste by putting in more snow, or more of the "tripe," as it seemed to require it. The pot was then taken from the fire, and all four greedily ate of its contents. It was far from being palatable, and had a clammy "feel" in the mouth, something like sago; but none of the party was in any way either dainty or fastidious just at that time, and they soon consumed all that had been cooked. It did not satisfy the appetite, though it filled the stomach, and made their situation less painful to bear.

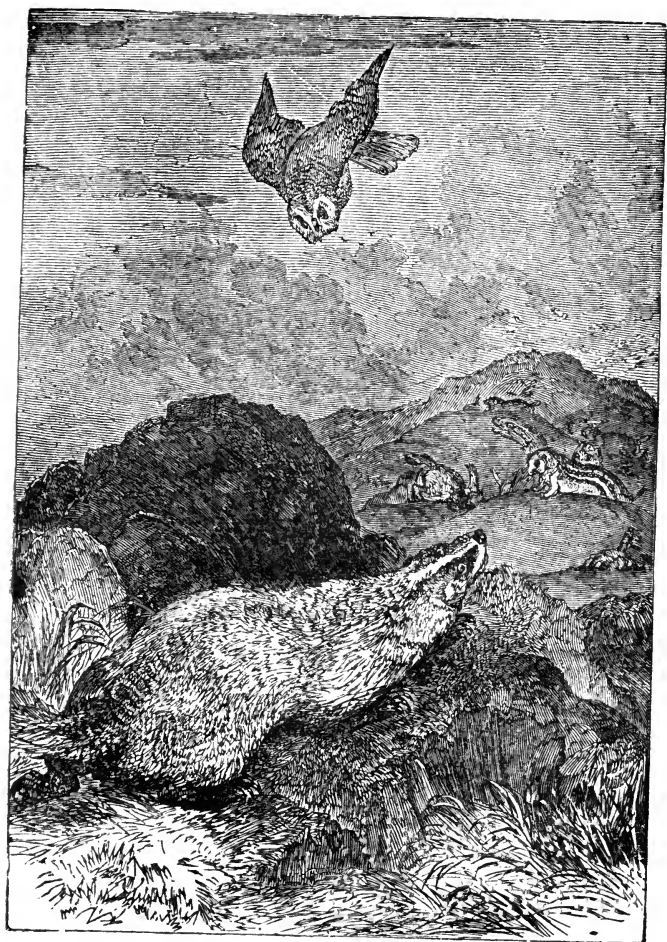
Norman informed them that it was much better when cooked with a little meat, so as to make broth. This Norman's companions could easily credit, but where was the meat to come from? The Indians prefer the *tripe de roche* when prepared along with the roe of fish, or when boiled in fish liquor.

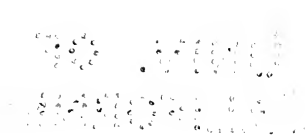
Our weary voyageurs resolved to remain among the rocks for that night at least; and with this intent they put up their little tent. They did not kindle any fire, as the willows were scarce, and there would be barely enough to make one or two more boilings of the rock-tripe. They spread their skins within the tent, and creeping in, kept one another as warm as they could until morning.

CHAPTER XXXII.

THE POLAR HARE AND GREAT SNOWY OWL

OF course hunger kept them from sleeping late. They were up and out of the tent by an early hour. Their fire was rekindled, and they were making preparations for a fresh pot of rock-tripe, when they were startled by the note of a well-known bird. On looking up, they beheld seated upon the point of a rock the creature itself, which was the "cinereous crow," (*Garulus Canadensis*), or, as it is better known, the "whiskey Jack." The latter name it receives from the voyageurs, on account of the resemblance of its Indian appellation, "whiskae-shaw-neesh" to the words "whiskey John." Although sometimes called the "cinereous crow," the bird is a true jay. It is one of the most inelegant of the genus, being of a dull gray color, and not particularly graceful in its form. Its plumage, moreover, does not consist of webbed feathers, but rather more resembles hair; nor does its voice make up for the plainness of its appearance, as is the case with some birds. On the contrary, the voice of "whiskey Jack" is plaintive and squeaking, though he is something of a mocker in his way, and frequently imitates the notes of other birds. He is one of those creatures that frequent the habitations of man, and there is not a fur post, or fort, in all the Hudson's Bay





territory, where "whiskey Jack" is not familiarly known. He is far from being a favorite, however, as, like his near relative the magpie, he is a great thief, and will follow the marten-trapper all day while baiting his traps, perching upon a tree until the bait is set, and then pouncing down, and carrying it off. He frequently pilfers small articles from the forts and encampments, and is so bold as to enter the tents, and seize food out of any vessel that may contain it. Notwithstanding all this, he is a favorite with the traveller through these inhospitable regions. No matter how barren the spot where the voyageur may make his camp, his tent will hardly be pitched, before he receives a visit from "whiskey Jack," who comes, of course, to pick up any crumbs that may fall. His company, therefore, in a region where all other wild creatures shun the society of man, endears him to the lonely traveller.

At many of their camps our voyageurs had met with this singular bird, and were always glad to receive him as a friend. They were now doubly delighted to see him, but this delight arose from no friendly feelings. Their guest was at once doomed to die. François had taken up his gun, and in the next moment would have brought him down, had he not been checked by Norman. Not that Norman intended to plead for his life, but Norman's eye had caught sight of another "whiskey Jack," — which was hopping among the rocks at some distance — and fearing that François' shot might frighten it away, had hindered him from firing. It was Norman's design to get both.

The second "whiskey Jack," or, perhaps, it was the whiskey "Jill," soon drew near; and both were now seen to hop from rock to rock, and then upon the top of the tent, and one of them actually settled upon the edge of the pot, as it hung over the fire, and quietly looking into it, appeared to scrutinize its contents!

The boys could not think of any way of getting the birds, except by François' gun; and it was at length agreed that François should do his best. He was sure of one of them, at least; so telling the others to get behind him, he fired at the more distant one where it sat upon the tent, and took the other on the wing.

Both shots were successful. The two jays fell, and were soon divested of their soft, silky, hair-like plumage, and dropped into the boiling pot. They did not weigh together more than about six or seven ounces; but even that was accounted something under present circumstances; and, with the *tripe de roche*, a much better breakfast was made than they had anticipated.

No more of the lichen could be found. The rocks were all searched, but only a few patches — not enough for another full meal — could be obtained. The travellers had no other resource, therefore, but to continue on, and passing through the rocky ground, they once more embarked upon the wilderness of snow.

During that whole day not a living creature gladdened their eyes. They saw nothing that was eatable — fish, flesh, fowl, or vegetable. Not even a bit

of rock-tripe — in these parts the last resource of starving men — could be met with. They encamped in a plain, where not a tree stood — not even a rock to shelter them.

Next morning a consultation was held. Marengo was again the subject of their thoughts and conversation. Should they kill him on the spot or go a little farther? That was the question. Lucien, as before, interposed in his favor. There was a high hill many miles off, and in their proper course. "Let us first reach yonder hill," proposed Lucien. If nothing is found before that, then we must part with Marengo."

The proposal was agreed to, and, striking their tent, they again set out.

It was a toilsome long way to that hill — feeble and weary as they all were — but they reached it without having observed the slightest trace of animal life.

"Up the hill!" cried Lucien, beckoning to the others, and cheering them with his weak voice, "Up the hill!"

On they went, up the steep declivity — Marengo toiling on after them. The dog looked downcast and despairing. He really appeared to know the conditions that had been made for his life. His masters, as they crept upward, looked sharply before them. Every tuft that appeared above the snow was scrutinized, and every inch of the ground, as it came into view, was examined.

At length they crossed the escarpment of the hill, and stood upon the summit. They gazed forward with disappointed feelings. The hill-top was a sort

of table plain, of about three hundred yards in diameter. It was covered with snow, nearly a foot in depth. A few heads of withered grass were seen above the surface, but not enough to subdue the uniform white that prevailed all over. There was no creature upon it; that was evident. A bird as big as a sparrow, or a quadruped as large as a shrew-mouse, could have been seen upon any part of it. A single glance satisfied all of them that no living thing was there.

They halted without proceeding farther. Some of them could not have gone another mile, and all of them were tottering in their tracks. Marengo had arrived upon the summit, and stood a little to one side, with the sledge behind him.

"*You must do it!*" said Basil, speaking to Norman in a hoarse voice, and turning his head away. Lucien and François stepped aside at the same time, and stood as if looking down the hill. The countenances of all three betokened extreme sorrow. There was a tear in Basil's eye that he was trying to wipe away with his sleeve.

The sharp click of Norman's gun was heard behind them, and they were all waiting for the report, when, at that moment, a dark shadow passing over the white declivity arrested their attention! It was the shadow of a bird upon the wing. The simultaneous exclamation of all three stayed Norman's finger—already pressing upon the trigger—and the latter, turning round, saw that they were regarding some object in the air. It was a bird of great size—almost as large as an eagle, but with the plumage of a swan

It was white all over — both body and wings — white as the snow over which it was sailing. Norman knew the bird at a glance. Its thick short neck and large head — its broad-spreading wings of milky whiteness, were not to be mistaken. It was the “great snowy owl” of the Arctic regions.

Its appearance suddenly changed the aspect of affairs. Norman let the butt of his rifle fall to the ground, and stood, like the rest, watching the bird in its flight.

The snowy owl (*Strix nyctea*) is, perhaps, the most beautiful, as it is one of the most powerful birds of its genus — of which there are more than a dozen in North America. It is a bird of the Polar regions — even the most remote — and in the dead of winter it is found within the Arctic circle, on both continents — although at the same season it also wanders farther south. It dwells upon the Barren Grounds as well as in wooded districts. In the former it squats upon the snow, where its peculiar color often prevents it from being noticed by the passing hunter. Nature has furnished it with every protection from the cold. Its plumage is thick, closely matted, and downy, and it is feathered to the very eyes — so that its legs appear as large as those of a good-sized dog. The bill, too, is completely hidden under a mass of feathers that cover its face, and not even a point of its whole body is exposed.

The owl is usually looked upon as a night-bird, and in southern latitudes it is rarely seen by day; but the owls of the Northern regions differ from their congeners in this respect. They hunt by day, even during

the bright hours of noon. Were it not so, how could they exist in the midst of an Arctic summer, when the days are months in duration? Here we have another example of the manner in which Nature trains her wild creatures to adapt themselves to their situation.

At least a dozen species of owls frequent the territory of the Hudson's Bay Company — the largest of which is the cinereous owl, whose wings have a spread of nearly five feet. Some species migrate south on the approach of winter; while several, as the snowy owl, remain to prey upon the ptarmigan, the hares, and other small quadrupeds, who, like themselves, choose that dreary region for their winter home.

Our travellers, as I have said, stood watching the owl as it soared silently through the heavens. François had thrown his gun across his left arm, in hopes he might get a shot at it; but the bird — a shy one at all times — kept away out of range; and, after circling once or twice over the hill, uttered a loud cry and flew off.

Its cry resembled the moan of a human being in distress; and its effect upon the minds of our travellers, in the state they then were, was far from being pleasant. They watched the bird with despairing looks, until it was lost against the white background of a snow-covered hill.

They had noticed that the owl appeared to be just taking flight when they first saw it. It must have risen up from the hill upon which they were; and they once more ran their eyes along the level summit, curious to know where it had been perched that they had not seen it. No doubt, reflected they, it had been

near enough, but its color had rendered it indistinguishable from the snow.

"What a pity!" exclaimed François.

While making these reflections, and sweeping their glances around, an object caught their eyes that caused some of them to ejaculate and suddenly raise their guns. This object was near the centre of the summit table, and at first sight appeared to be only a lump of snow; but upon closer inspection, two little round spots of a dark color, and above these two elongated black marks, could be seen. Looking steadily, the eye at length traced the outlines of an animal, that sat in a crouching attitude. The round spots were its eyes, and the black marks above them were tips of a pair of very long ears. All the rest of its body was covered with a soft white fur, hardly to be distinguished from the snow upon which it rested.

The form and color of the animal, but more especially its long erect ears, made it easy for them to tell what it was. All of them saw it was a hare.

"Hush!" continued Norman, as soon as he saw it; "keep still all of you — leave it to me."

"What shall we do?" demanded Basil. "Can we not assist you?"

"No," was the reply, uttered in a whisper; "stay where you are. Keep the dog quiet. I'll manage puss, if the owl hasn't scared her too badly. That scream has started her out of her form. I'm certain she wasn't that way before. Maybe she'll sit it out. Lucky the sun's high — don't move a step. Have the dog ready, but hold him tight, and keep a sharp lookout if she bolts."

After giving these instructions, that were all uttered quickly and in an under tone, Norman moved off, with his gun carried across his arm. He did not move in the direction of the hare, but rather as if he was going *from* her. His course, however, bent gradually into a circle of which the hare was the centre — the diameter being the full breadth of the summit level, which was about three hundred yards. In this circle he walked round and round, keeping his eye fixed upon the crouching animal. When he had nearly completed one circumference, he began to shorten the diameter — so that the curve which he was now following was a spiral one, and gradually drawing nearer to the hare. The latter kept watching him as he moved — curiosity evidently mingling with her fears. Fortunately, as Norman had said, the sun was nearly in the vertex of the heavens, and his own body cast very little shadow upon the snow. Had it been otherwise, the hare would have been frightened at the moving shadow, and would have sprung out of her form, before he could have got within range.

When he had made some four or five circuits, Norman moved slower and slower, and then stopped nearly opposite to where the others were. These stood watching him with beating hearts, for they knew that the life of Marengo, and perhaps their own as well, depended on the shot. Norman had chosen his place, so that in case the hare bolted, she might run towards them, and give them the chance of a flying shot. His gun was already at his shoulder — his finger rested on the trigger, and the boys were expecting the report, when again the shadow of a bird

fitted over the snow, a loud human-like scream sounded in their ears, and the hare was seen to spring up, and stretch her long legs in flight. At the same instant the great snowy owl was observed wheeling above, and threatening to pounce upon the fleeing animal!

The hare ran in a side direction, but it brought her as she passed within range of the party by the sledge. The owl kept above her as she ran. A dozen leaps was all the hare ever made. A loud crack was heard, and she was seen to spring up and fall back upon the snow, dead as a door-nail. Like an echo another crack followed — a wild scream rang through the air, and the great white owl fell fluttering to the earth. The reports were not of a rifle. They were the louder detonations of a shot gun. All eyes were turned towards François, who, like a little god, stood enveloped in a halo of blue smoke. François was the hero of the hour.

Marengo rushed forward and seized the struggling owi, that snapped its bill at him like a watchman's rattle. But Marengo did not care for that; and seizing its head in his teeth, gave it a crunch that at once put an end to its flapping.

Marengo was reprieved, and he seemed to know it as he bounded over the snow, waving his tail, and barking like a young fool.

They all ran up to the hare, which proved to be the "Polar hare" (*Lepus glacialis*), and one of the largest of its species — not less than fifteen pounds in weight. Its fur, soft and white like swan-down, was stained with red blood. It was not quite dead. Its little heart yet

beat faintly, and the light of life was still shining from its beautiful honey-colored eyes. Both it and the owl were taken up and carried to the sledge, which was once more attached to Marengo, as the party intended to go forward and halt under the shelter of the hill.

"There must be some wood in this quarter," remarked Norman: "I never knew this sort of hare far from timber."

"True," said Lucien, "the Polar hare feeds upon willows, arbutus, and the Labrador tea-plant. Some of these kinds must be near.

While they were speaking, they had reached the brow of the hill, on the opposite side from where they had ascended. On looking into the valley below, to their great joy they beheld some clumps of willows, and good-sized trees of poplar, birch, and spruce-pine (*Pinus alba*), and passing down the hill, the travellers soon stood in their midst. Presently was heard the chipping sound of an axe and crash of falling timber, and in a few moments after a column of smoke was seen soaring up out of the valley, and curling cheerfully towards the bright blue sky.

CHAPTER XXXIII.

THE JUMPING MOUSE AND THE ERMINE.

LARGE as the hare was, she would have made but a meal for our four hungry voyageurs, had they eaten at will. By Lucien's advice, however, they restrained themselves, and half of her was left for supper, when the "cook" promised to make them hare-soup. The head, feet, and other spare bits, fell to Marengo's share. The owl, whose flesh was almost as white as its plumage, and, as Norman well knew, most delicate eating, was reserved for to-morrow's breakfast.

They had pitched their tent with the intention of remaining at that place all night, and continuing their journey next day ; but, as it still wanted several hours of sunset, and the strength of all was considerably recruited, they resolved to hunt about the neighborhood as long as they had light. It was of great importance that they should procure more game. The owl would make but a spare breakfast, and after that where was the next meal to come from ? They had had a temporary relief, and while their strength lasted, they must use every effort to procure a further supply. The valley in which their new camp was placed looked well for game. It was a sort of o asis in the Barren Grounds. There was a lake and a considerable skirt-ing of timber around it — consisting, as we have said,

of willows, poplars, spruce-pine, and dwarf birch-trees (*Betula nana*). The Alpine arbutus, whose berries are the food of many species of animals, also grew upon the side of the hills; and the Labrador tea-plant (*Ledum palustre*) was found upon the low ground around the lake. The leaves of this last is a favorite food of the Polar hare, and our voyageurs had no doubt but that there were many of these animals in the neighborhood. Indeed, they had better evidence than conjecture, for they saw numerous hare-tracks in the snow. There were tracks of other animals too, for it is a well-known fact that where one kind exists, at least two or three others will be found in the same habitat — all being connected together by a “chain of destruction.”

A singular illustration of this was afforded to Lucien, who remained at the camp while the rest went out hunting. He had gathered some of the leaves of the Labrador tea, and was drying them over the coals, intending to cheer his comrades with a cup of this beverage after supper. The hare-soup was boiling, and the “cook” sat listening to the cheerful sounds that issued from the pot — now and then taking off the lid to examine its savory contents, and give them a stir. He would then direct his attention to the tea-leaves that were parching in the frying-pan; and, having shifted them a little, felt himself at liberty to look about for a minute or two.

On one of these occasions, while glancing up, his attention was attracted to an object which appeared upon the snow at a short distance from where he sat. A wreath of snow, that had formed under the shelter

of the hill, extended all around its base, presenting a steep front in every direction. This front was only two or three feet in height; but the top surface of the wreath was many yards wide—in fact, it extended back until it became blended with the slope of the hill. It was smooth and nearly level, but the hill above was steep, and somewhat rough and rocky. The steep front of the wreath came down within half-a-dozen paces of the fire where Lucien was seated; and it was upon the top or scarpment of it that the object appeared that had drawn his attention. It was a small creature, but it was in motion, and thus had caught his eye.

A single glance showed him that the little animal was a mouse, but of a somewhat singular species. It was about the size of the common mouse, but quite different in color. The upper half of its body was of a light mahogany tint, while the lower half, including the legs and feet, were of a milky whiteness. It was, in fact, the "white-footed mouse" (*Mus leucopus*), one of the most beautiful of its kind.

Here and there above the surface of the snow protruded the tops of arbutus-trees; and the little creature was passing from one of these to the other, in search, no doubt, of the berries that remain upon these trees all the winter. Sometimes it ran from point to point like any other mouse, but now and then it would rear itself on its hind-legs, and leap several feet at a single bound! In this it evidently assisted itself by pressing its tail—in which it possesses muscular power—against the snow. This peculiar mode of progression

has obtained for it the name of the "jumping-mouse," and among the Indians "deer"-mouse, because its leap reminds them of the bounding spring of the deer. But there are still other species of "jumping mice" in America that possess this power to a greater degree even than the *Mus leucopus*.

Lucien watched its motions without attempting to interfere with it, until it had got nearly out of sight. He did not desire to do injury to the little creature, nor was he curious to obtain it, as he had already met with many specimens, and examined them to his satisfaction. He had ceased to think of it, and would, perhaps, never have thought of it again, but, upon turning his eyes in the opposite direction, he observed another animal upon the snow. This creature had a far different aspect from the mouse. Its body was nearly a foot in length, although not much thicker than that of the other! Its legs were short, but strong, and its forehead broad and arched convexly. It had a tail more than half the length of the body, hairy, and tapering like that of a cat. Its form was the well-known form of the weasel, and it was, in fact, a species of weasel. It was the celebrated *ermine* (*Mustela erminea*), celebrated for its soft and beautiful fur, so long prized as an ornament for the robes of the rich. It was white all over, with the exception of its tail; and that, for about an inch or so at the tip, was covered with black silky hair. On some parts of the body, too, the white was tinged with a primrose yellow; but this tinge is not found in all animals of this species, as some individuals are pure white. Of

course, it was now in its winter "lobes;" but in the summer it changes to a color that does not differ much from that of the common weasel.

When Lucien first saw it, it was running along the top of the wreath, and coming from the same direction from which the mouse had come. Now and then it paused a while, and then ran on again. Lucien observed that it kept its nose to the ground, and as it drew nearer he saw that it was following on the same path which the other had taken. To his astonishment he perceived that it was *trailing the mouse*! Wherever the latter had doubled or made a *détour*, the ermine followed the track; and where the mouse had given one of its long leaps, there the ermine would stop, and, after beating about until it struck the trail again, would resume its onward course at a gallop. Its manœuvres were exactly like those of a hound upon the fresh trail of a fox!

Lucien now looked abroad to discover the mouse. It was still in sight far off upon the snow, and, as Lucien could see, busily gnawing at the arbutus, quite unconscious that its *greatest* enemy was so near. I say *greatest* enemy, for the *Mus leucopus* is the *natural* prey of the *Mustela erminea*.

The mouse was soon made aware of the dangerous proximity, but not until the ermine had got within a few feet of it. When it perceived the latter, it shrunk, at first, among the leaves of the arbutus: but seeing there would be no protection there — as the other was still springing forward to seize it — it leaped up, and endeavored to escape by flight. Its flight appeared to

be in alternate jumps and runs, but the chase was not a long one. The ermine was as active as a cat, and after a few skips, its claws were struck into the mouse. There was a short, slender squeak, and then a "crunch," like the cracking of a hazel-nut. This last sound was produced by the teeth of the ermine breaking through the skull of its victim.

CHAPTER XXXIV.

THE ARCTIC FOX AND WHITE WOLF.

LUCIEN turned round to get hold of his rifle, intending to punish the ermine, although the little creature, in doing what it did, had only obeyed a law of nature. But the boy had also another design in killing it: he wished to compare it with some ermines he had seen while travelling upon Lake Winnipeg, which, as he thought, were much larger — one that he had caught having measured more than a foot in length, without including the tail. He wished, also, to make some comparison between it and the common weasel; for in its *winter dress*, in the snowy regions, the latter very much resembles the ermine; and, indeed, the trappers make no distinction between them.

With these ideas Lucien had grasped his gun, and was raising himself to creep a little nearer, when his eye was arrested by the motions of another creature coming along the top of the wreath. This last was a snow-white animal, with long, shaggy fur, sharp-pointed snout, erect ears, and bushy tail. Its aspect was fox-like, and its movements and attitudes had all that semblance of cunning and caution so characteristic of these animals. Well might it, for it *was* a fox — the beautiful white fox of the Arctic regions.

It is commonly supposed that there are but two or

three kinds of foxes in America ; and that these are only varieties of the European species.

This is an erroneous idea, as there are nearly a dozen varieties existing in North America, although they may be referred to a less number of species. There is the Arctic fox, which is confined to the cold northern regions, and which in winter is white.

The "sooty fox" is a variety of the "Arctic," distinguished from it only by its color, which is of a uniform blackish brown.

The "American fox" (*Vulpes fulvus*), or, as it is commonly called, the "red fox," has been long supposed to be the same as the European red fox. This is erroneous. They differ in many points ; and, what is somewhat curious, these points of difference are similar to those that exist between the European and American wolves, as already given.

The "cross fox" is supposed by the Indians and some naturalists to be only a variety of the last. It derives its name from its having two dark stripes crossing each other upon the shoulders. Its fur from this circumstance, and perhaps because the animal is scarce, is more prized than that of the red variety. When a single skin of the latter is worth only fifteen shillings, one of the cross fox will bring as much as five guineas.

Another variety of the red fox, and a much more rare one, is the "black," or "silver" fox. The skins of these command six times the price of any other furs found in America, with the exception of the sea-otter. The animal itself is so rare that only a few fall into the hands of the Hudson's Bay Company in

a season ; and Mr. Nicholay, the celebrated London furrier, asserts that a single skin will fetch from ten to forty guineas, according to quality. A remarkable cloak, or pelisse, belonging to the Emperor of Russia, and made out of the skins of silver-foxes, was exhibited in the Great London exposition of 1851. It was made entirely from the neck part of the skins — the only part of the silver-fox which is pure black. This cloak was valued at 3400*l.* ; though Mr. Nicholay considers this an exaggerated estimate, and states its true value to be not over 1000*l.* George the Fourth had a lining of black fox-skins worth 1000*l.*

The “gray fox” is a more southern species than any already described. Its proper home is the temperate zone covered by the United States ; although it extends its range into the southern parts of Canada. In the United States it is the most common kind, although in that district there is also a “red fox,” different from the *Vulpes fulvus* already noticed ; and which, no doubt, is the red fox of Europe, introduced by the early colonists of America.

Still another species, the smallest and perhaps the most interesting of any, is the “kit fox.” This little creature is an inhabitant of the prairies, where it makes its burrows far from any wood. It is extremely shy, and the swiftest animal in the prairie country — outrunning even the antelope !

When Lucien saw the fox he thought no more of the ermine, but drew back and crouched down, in hopes he might get a shot at the larger animal. He knew well that the flesh of the Arctic fox is highly esteemed as food, particularly by persons situated as

he and his companions were, and he hoped to be able to add it to their larder.

When first seen it was coming towards him, though not in a direct line. It was engaged in hunting, and, with its nose to the snow, was running in zigzag lines, "quartering" the ground like a pointer dog. Presently it struck the trail of the ermine, and with a yelp of satisfaction followed it. This of course brought it close past where Lucien was; but, notwithstanding his eagerness to fire, it moved so rapidly along the trail that he was unable to take sight upon it. It did not halt for a moment; and, as Lucien's gun was a rifle, he knew that a flying shot would be an uncertain one. In the belief, therefore, that the fox would stop soon—at all events when it came up with the ermine—he restrained himself from firing, and waited.

It ran on, still keeping the track of the ermine. The latter, hitherto busy with his own prey, did not see the fox until it was itself seen, when, dropping the half-eaten mouse, it reared up on its hind-quarters like a squirrel or a monkey, at the same time spitting as spitefully as any other weasel could have done. In a moment, however, it changed its tactics—for the open jaws of the fox were within a few paces of it—and after making a short quick run along the surface, it threw up its hind-quarters, and plunged head-foremost into the snow! The fox sprang forward, and flinging his brush high in air, shot after like an arrow!

Both had now disappeared from Lucien's sight. For a moment the surface of the snow was disturbed above the spot where they had gone down, but the

next moment all was still, and no evidence existed that a living creature had been there, except the tracks, and the break the two creatures had made in going down. Lucien ran forward until he was within a few yards of the place, and stood watching the hole, with his rifle ready — thinking that the fox, at least, would soon come up again.

He had waited for nearly five minutes, looking steadily at this point, when his eye was attracted by a movement under the snow, at a considerable distance, quite fifty paces, from where he stood. The frozen crust was seen to upheave: and, the next moment, the head of the fox, and afterwards his whole body, appeared above the surface. Lucien saw that the ermine lay transversely between his jaws, and was quite dead! He was about to fire, but the fox, suddenly perceiving him, shot off like an arrow, carrying his prey along with him. He was soon out of reach, and Lucien, seeing that he had lost his chance, was about to return to the fire, when, all at once, the fox was observed to stop, turn suddenly in his tracks, and run off in a new direction! Lucien looked beyond to ascertain the cause of this strange manoeuvre. That was soon ascertained. Coming down from among the rocks was a large animal — five times the fox's size — but in other respects not unlike him. It was also of a snow-white color, with long hair, bushy tail, and short erect ears, but its aspect was not to be mistaken. It was the great *white wolf*.

When Lucien first saw this new-comer, the latter had just espied the fox, and was about stretching out into a gallop towards him. The fox, *watching back*

wards as he ran, had not seen the wolf, until the latter was within a few springs of him ; and now when he had turned, and both were in full chase, there was not over twenty yards between them. The direction in which they ran would bring them near to Lucien ; and so they came, and passed him — neither of them seeming to heed his presence. They had not got many yards farther, before Lucien perceived that the wolf was fast closing on the fox, and would soon capture him. Believing he would then stop, so as to offer him a fairer chance for a shot, Lucien followed. The wolf, however, had noticed him coming after, and although the next moment he closed his great jaws upon the fox, he did not pause for a single instant, but, lifting the latter clear up from the ground, ran on without the slightest apparent diminution of speed !

Renard was seen to struggle and kick, while he squeaked like a shot puppy ; but his cries each moment grew feebler, and his struggles soon came to an end. The wolf held him transversely in his jaws — just as he himself, but the moment before had carried the ermine.

Lucien saw there was no use in following them, as the wolf ran on with his prey. With some disappointment, therefore, he was about to return to the fire, where, to add to his mortification, he knew he would find his tea-leaves parched to a cinder. He lingered a moment, however, with his eyes still fixed upon the departing wolf that was just about to disappear over the crest of a ridge. The fox was still in his jaws, but no longer struggling. Renard looked limber and

dead, as his legs swung loosely on both sides of the wolf's head. Lucien at that moment saw the latter suddenly stop in his career, and then drop down upon the surface of the snow as if dead! He fell with his victim in his jaws, and lay half doubled up, and quite still.

This strange action would have been a difficult thing for Lucien to explain, but, almost at the same instant in which he observed it, a puff of blue smoke shot up over the ridge, and quickly following was heard the sharp crack of a rifle. Then a head with its cap of raccoon skin appeared above the snow, and Lucien, recognizing the face of Basil, ran forward to meet him.

Both soon stood over the body of the dead wolf, wondering at what they saw; but Basil far more than Lucien — for the latter already knew the circumstances of that strange scene of death. First there was the great gaunt body of the wolf stretched along the snow, and quite dead. Crossways in his mouth was the fox, just as he had been carried off; and across the jaws of the latter, lay the long worm-like body of the ermine, still retaining between its teeth the half-devoured remains of the white-footed mouse! A very chain of destroyers! These creatures died as they had lived, preying one upon the other! Of all four the little mouse alone was an innocent victim. The other three, though morally guilty by the laws of man, yet were only acting in obedience to the laws of Nature and necessity. Man himself obeys a similar law, as Basil had just shown. Philosophize as we will, we cannot comprehend why it is so — why Nature

requires the sacrifice of one of her creatures for the sustenance of another. But although we cannot understand the cause, we must not condemn the fact as it exists; nor must we suppose, as some do, that the destruction of God's creatures for our necessities constitutes a crime. They who think so, and who, in consistency with their doctrines, confine themselves to what they term "vegetable" food, are at best but shallow reasoners. They have not studied Nature very closely, else would they know that every time they pluck up a parsnip, or draw their blade across the leaf of a lettuce, they cause pain and death! How much pain we cannot tell; but that the plant feels, as well as the animal, we can clearly *prove*. Probably it feels less, and it may be each kind of plant differs from others in the amount, according to its higher or lower organism. Probably its amount of pleasure — its capability of enjoyment — is in a direct proportion to the pain which it endures; and it is highly probable that this double line of ratios runs in an ascending scale throughout the vegetable kingdom, gradually joining on to what is more strictly termed the "animal." But these mysteries of life, my young friend, will be interesting studies for you when your mind becomes matured. Perhaps it may be your fortune to unravel some of them, for the benefit of your fellow-men. I feel satisfied that you will not only be a student of Nature, but one of her great teachers; you will far surpass the author of this little book in your knowledge of Nature's laws; but it will always be a happiness to him to reflect, that, when far advanced upon the highway of science, you

will look back to him as one you had passed upon the road, and who *pointed you to the path*.

Though Basil had shot the wolf, it was plain that it was not the first nor yet the second time he had discharged his rifle since leaving the camp. From his game-bag protruded the curving claws and wing-tips of a great bird. In one hand he carried a white hare — not the Polar hare — but a much smaller kind, also an inhabitant of these snowy regions; and over his shoulders was slung a fierce-looking creature, the great wildcat or lynx of America (*Lynx Canadensis*). The bird in his bag was the golden eagle (*Aquila chrysaetos*), one of the few feathered creatures that brave the fierce winter of a northern climate, and does not migrate, like its congeners the “white-head” and the osprey, to more southern regions.

Basil had returned alone — for the three, Basil, Norman, and François, had taken different directions at setting out. This they had done, in order to have as great a number of chances as possible of finding the game. Norman came in a few minutes after, bearing a whole deer upon his shoulders — a glad sight that was — and, a short interval having passed, François’ “hurrah” sounded upon their ears, and François himself was seen coming up the valley loaded like a little donkey with two bunches of large snow-white birds.

The camp now exhibited a cheering sight. Such a variety was never seen even in the larder of a palace kitchen. The ground was strewed with animals like a dead menagerie. There were no less than a dozen kinds upon it.

The hare-soup was now quite ready, and was accordingly served up by Lucien in the best style. Lucien had dried a fresh "grist" of the tea-leaves, and a cheering cup followed ; and then the party all sat around their log-fire, while each of them detailed the history of his experience since parting with the others.

François was the first to relate what had befallen him

CHAPTER XXXV.

THE JERFALCON AND THE WHITE GROUSE.

"MINE," began François, "was a bird adventure, as you all see — though what kind of birds I've shot I can't tell. One of them's a hawk, I'm sure ; but it's a *white* hawk, and that I never saw before. The rest, I suppose, are *white* partridges. Every thing appears to be white here. What are they, Luce?"

"You are right about this first," answered Lucien, taking up one of the birds which François had brought back with him, and which was white all but a few spots of clove-brown upon its back. "This is a hawk, as you may tell by its appearance, or rather I should say a 'falcon,' for you must know there is a difference."

"What difference?" demanded François, with some eagerness of manner.

"Why, the principal difference is the formation of their beaks or bills. The bills of the true falcons are stronger, and have a notch in the lower mandible answering to a tooth in the upper one. Their nostrils, too, are differently formed. But another point of distinction is found in their habits. Both feed on warm-blooded animals, and neither will eat carrion. In this respect the hawks and falcons are alike. Both take their prey upon the wing; but herein lies the

difference. The hawks capture it by skimming along horizontally or obliquely, and picking it up as they pass; whereas the true falcons 'pounce' down upon it from above, and in a line nearly vertical."

"Then this must be a true falcon," interrupted François, "for I saw the gentleman do that very thing; and beautifully he did it, too."

"It is a falcon," continued Lucien; "and of the many species of hawks which inhabit North America—over twenty in all—it is one of the boldest and handsomest. I don't wonder you never saw it before; for it is truly a bird of the northern regions, and does not come so far south as the territory of the United States, much less into Louisiana. It is found in North Europe, Greenland, and Iceland, and has been seen as far north on both continents as human beings have travelled. It is known by the name of 'jerfalcon,' or 'gyrfalcon,' but its zoölogical name is *Falco Islandicus*."

"The Indians here," interposed Norman, "call it by a name that means 'winter bird,' or 'winterer'—I suppose, because it is one of the few that stay in these parts all the year round, and is therefore often noticed by them in winter time. The traders sometimes call it the 'speckled partridge-hawk,' for there are some of them more spotted than this one is."

"True," said Lucien; "the young ones are nearly of a brown color, and they first become spotted or mottled after a year or two. They are several years old before they get the white plumage, and very few individuals are seen of a pure white all over, though there are some without a spot."

“Yes,” continued the naturalist, “it is the jerrfalcon and those other birds which you call ‘white partridges,’ are the very creatures upon which it preys. So you have killed both the tyrant and his victims. They are not partridges though, but grouse — that species known as ‘willow grouse’ (*Tetrao saliceti*).”

And as Lucien said this, he began to handle the birds, which were of a beautiful white all over, with the exception of the tail feathers. These last were pitch-black.

“Ho!” exclaimed Lucien, in some surprise, “you have two kinds here! Were they all together when you shot them?”

“No,” answered François; “one I shot along with the hawk out in the open ground. All the others I killed upon a tree in a piece of woods that I fell in with. There’s no difference between them that I can see.”

“But I can,” said Lucien, “although I acknowledge they all look very much alike. Both are feathered to the toes — both have the black feathers in the tail — and the bills of both are black; but if you observe closely, this kind — the willow-grouse — has the bill much stronger and less flattened. Besides, it is a larger bird than the other, which is ‘the rock-grouse’ (*Tetrao rupestris*). Both are sometimes, though erroneously, called ‘ptarmigan;’ but they are not the true ptarmigan (*Tetrao mutus*) — such as exist in North Europe — though these last are also to be met with in the northern parts of America. The ptarmigan are somewhat larger than either of these kinds, but in other respects differ but little from them.

"The haunts of the 'rock' and 'willow' grouse are very similar. They are both birds of the snowy regions, and are found as far north as has been explored. The willow-grouse in winter keep more among the trees, and are oftener met with in wooded countries; whereas the others like best to live in the open ground, and, from your statement, it appears you found each kind in its favorite haunt."

"Just so," said François. "After leaving here, I kept down the valley, and was just crossing an open piece of high ground, when I espied the white hawk, or falcon as you call it, hovering in the air as I'd often seen hawks do. Well, I stopped and hid behind a rock, thinking I might have a chance to put a few drops into him. All at once he appeared to stand still in the air, and, then closing his wings, shot down like an arrow. Just then I heard a loud '*whir-r-r*,' and up started a whole covey of white partridges — grouse, I should say — the same as this you call the 'rock-grouse.' I saw that the hawk had missed the whole of them, and I marked them as they flew off. They pitched about a hundred yards or so, and then went plunge under the snow — every one of them making a hole for itself just like where one had poked their foot in! I guess, boys, this looked funny enough. I thought I would be sure to get a shot at some of these grouse as they came out again; so I walked straight up to the holes they had made, and stood waiting. I still saw the hawk hovering in the air, about a hundred yards ahead of me.

"I was considering whether I ought to go farther on, and tramp the birds out of the snow; for I be

fieled, of course, they were still under the place where the holes were. All at once I noticed a movement on the crust of the snow right under where the hawk was flying, and then that individual shot down to the spot, and disappeared under the snow! At the same instant, the crust broke in several places, and up came the grouse, one after another, and whirred off out of sight, without giving me any sort of a chance. The hawk, however, had not come up yet; and I ran forward, determined to take him as soon as he should make his appearance. When I had got within shooting distance, up he fluttered to the surface, and,—what do you think?—he had one of the grouse struggling in his claws! I let him have the right barrel, and both he and grouse were knocked dead as a couple of door-nails.

“I thought I might fall in with the others again, and kept on in the direction they had taken, which brought me at last to a piece of woodland consisting of birches and willow-trees. As I was walking along the edge of this, I noticed one of the willows, at some distance off, covered with great white things, that at first I took for flakes of snow; but then I thought it curious that none of the other trees had the same upon them. As I came a little nearer, I noticed one of the things moving, and then I saw they were birds, and very like the same I had just seen, and was then in search of. So I crept in among the trees; and, after some dodging, got within beautiful shooting distance, and gave them both barrels. There, you see the result!’

Here François triumphantly pointed to the pile of

birds, which in all, with the jerfalcon, counted four brace and a half.

One was the rock-grouse, which the falcon had itself killed, and the others were willow-grouse, as Lucien had stated. François now remained silent, while Basil related his day's adventure.

CHAPTER XXXVI.

THE HARE, THE LYNX, AND THE GOLDEN EAGLE

"FRANK," began he, "has called his a 'bird adventure.' I might give mine somewhat of the same title, for there was a bird mixed up with it — the noblest of all birds — the eagle. But you shall hear it.

"On leaving the camp, I went, as you all know, up the valley. After travelling for a quarter of a mile or so, I came upon a wide open bottom, where there were some scattered willows and clumps of dwarf birch-trees. As Luce had told me that such are the favorite food of the American hare, or, as we call it in Louisiana, 'rabbit,' I looked out for the sign of one, and, sure enough, I soon came upon a track, which I knew to be that of 'puss.' It was fresh enough, and I followed it. It kept me meandering about for a long while, till at last I saw that it took a straight course for some thick brushwood, with two or three low birches growing out of it. As I made sure of finding the game there, I crept forward very quietly, holding Marengo in the leash. But the hare was not in the brush; and, after tramping all through it, I again noticed the track where she had gone out on the opposite side. I was about starting forth to follow it, when all at once an odd-looking creature made its appearance right before me. It was that fellow

there!" And Basil pointed to the lynx. "I thought at first sight," continued he, "it was our Louisiana wildcat or bay lynx, as Luce calls it, for it is very like our cat; but I saw it was nearly twice as big, and more grayish in the fur. Well, when I first sighted the creature, it was about a hundred yards off. It hadn't seen me, though, for it was not running away, but skulking along slowly — nearly crosswise to the course of the hare's track — and looking in a different direction to that in which I was. I was well screened behind the bushes, and that, no doubt, prevented it from noticing me. At first I thought of running forward, and setting Marengo after it. Then I determined on staying where I was, and watching it a while. Perhaps it may come to a stop, reflected I, and let me creep within shot. I remained, therefore, crouching among the bushes, and kept the dog at my feet.

"As I continued to watch the cat, I saw that, instead of following a straight line, it was moving in a circle!

"The diameter of this circle was not over a hundred yards; and in a very short while the animal had got once round the circumference, and came back to where I had first seen it. It did not stop there, but continued on, though not in its old tracks. It still walked in a circle, but a much smaller one than before. Both, however, had a common centre; and, as I noticed that the animal kept its eyes constantly turned towards the centre, I felt satisfied that in that place would be found the cause of its strange manœuvring. I looked to the centre. At first I could see nothing — at least

nothing that might be supposed to attract the cat. There was a very small bush of willows, but they were thin. I could see distinctly through them, and there was no creature there, either in the bush or around it. The snow lay white up to the roots of the willows, and I thought that a mouse could hardly have found shelter among them, without my seeing it from where I stood. Still I could not explain the odd actions of the lynx upon any other principle than that it was in the pursuit of game; and I looked again, and carefully examined every inch of the ground as my eyes passed over it. This time I discovered what the animal was after. Close in to the willows appeared two little parallel streaks of a dark color, just rising above the surface of the snow. I should not have noticed them had there not been two of them, and these slanting in the same direction. They had caught my eyes before, but I had taken them for the points of broken willows. I now saw that they were the ears of some animal, and I thought that once or twice they moved slightly while I was regarding them. After looking at them steadily for a time, I made out the shape of a little head underneath. It was white, but there was a round dark spot in the middle, which I knew to be an eye. There was no body to be seen. That was under the snow, but it was plain enough that what I saw was the head of a hare. At first I supposed it to be a Polar hare — such as we had just killed — but the tracks I had followed were not those of the Polar hare. Then I remembered that the ‘rabbit’ of the United States also turns white in the winter of the northern regions. This, then, must be the American rabbit, thought I.

“Course my reflections did not occupy all the time I have taken in describing them. Only a moment or so. All the while the lynx was moving round and round the circle, but still getting nearer to the hare that appeared eagerly to watch it. I remembered how Norman had manœuvred to get within shot of the Polar hare; and I now saw the very same *ruse* being practised by a dumb creature, that is supposed to have no other guide than instinct. But I had seen the ‘bay lynx’ of Louisiana do some ‘dodges’ as cunning as that,—such as claying his feet to make the hounds lose the scent, and, after running backwards and forwards upon a fallen log, leap into the tops of trees, and get off in that way. Believing that his northern cousin was just as artful as himself” (here Basil looked significantly at the “Captain,”) “I did not so much wonder at the performance I now witnessed. Nevertheless, I felt a great curiosity to see it out. But for this curiosity I could have shot the lynx every time he passed me on the nearer edge of the circle. Round and round he went, then, until he was not twenty feet from the hare, that, strange to say, seemed to regard this, the worst of her enemies, more with wonder than fear. The lynx at length stopped suddenly, brought his four feet close together, arched his back like an angry cat, and then, with one immense bound, sprang forward upon his victim. The hare had only time to leap out of her form, and the second spring of the lynx brought him right upon the top of her. I could hear the child-like scream which the American rabbit always utters when thus seized; but the cloud of snow-spray raised above the spot





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prevented me for a while from seeing either lynx or hare. The scream was stifled in a moment, and when the snow-spray cleared off, I saw that the lynx held the hare under his paws, and that 'puss' was quite dead.

"I was considering how I might best steal up within shooting distance, when, all at once, I heard another scream of a very different sort. At the same time a dark shadow passed over the snow. I looked up, and there, within fifty yards of the ground, a great big bird was wheeling about. I knew it to be an eagle from its shape; and at first I fancied it was a young one of the white-headed kind — for, as you are aware, these do not have either the white head or tail until they are several years old. Its immense size, however, showed that it could not be one of these. It must be the great '*golden*' eagle of the Rocky Mountains, thought I.

"When I first noticed it, I fancied that it had been after the rabbit; and, seeing the latter pounced upon by another preying creature, had uttered its scream at being thus disappointed of its prey. I expected, therefore, to see it fly off. To my astonishment it broke suddenly out of the circles in which it had been so gracefully wheeling, and, with another scream wilder than before, darted down towards the lynx!

"The latter, on hearing the first cry of the eagle, had started, dropped his prey, and looked up. In the eagle he evidently recognized an antagonist, for his back suddenly became arched, his fur bristled up, his short tail moved quickly from side to side, and he stood with glaring eyes, and claws ready to receive the attack.

“As the eagle came down, its legs and claws were thrown forward, and I could then tell it was not a bald eagle, nor the great ‘Washington eagle,’ nor yet a fishing eagle of any sort, which both of these are. The fishing eagles, as Lucien had told me, *have always naked legs*, while those of the true eagles are more feathered. So were his, but beyond the feathers I could see his great curved talons, as he struck forward at the lynx. He evidently touched and wounded the animal, but the wound only served to make it more angry; and I could hear it purring and spitting like a tom-cat, only far louder. The eagle again mounted back into the air, but soon wheeled round and shot down a second time. This time the lynx sprang forward to meet it, and I could hear the concussion of their bodies as they came together. I think the eagle must have been crippled, so that it could not fly up again, for the fight from that time was carried on upon the ground. The lynx seemed anxious to grasp some part of his antagonist’s body — and at times I thought he had succeeded — but then he was beaten off again by the bird, that fought furiously with wings, beak, and talons. The lynx now appeared to be the attacking party, as I saw him repeatedly spring forward at the eagle, while the latter always received him upon its claws, lying with its back upon the snow. Both fur and feathers flew in every direction, and sometimes the combatants were so covered with the snow-spray that I could see neither of them.

“I watched the conflict for several minutes, until it occurred to me, that my best time to get near enough for a shot was just while they were in the thick of it,

and not likely to heed me. I therefore moved silently out of the bushes ; and, keeping Marengo in the string, crept forward. I had but the one bullet to give them, and with that I could not shoot both ; but I knew that the quadruped was eatable, and, as I was not sure about the bird, I very easily made choice, and shot the lynx. To my surprise the eagle did not fly off, and I now saw that one of its wings was disabled ! He was still strong enough, however, to scratch Marengo severely before the latter could master him. As to the lynx, he had been roughly handled. His skin was torn in several places, and one of his eyes, as you see, regularly 'gouged out.' "

Here Basil ended his narration ; and after an interval, during which some fresh wood was chopped and thrown upon the fire, Norman, in turn, commenced relating what had befallen him.

CHAPTER XXXVII.

THE "ALARM BIRD" AND THE CARIBOU.

"THERE wasn't much 'adventure' in my day's sport," said he, "though I might call it a 'bird-adventure' too, for if it hadn't been for a bird I shouldn't have had it. I shot a deer — that's all. But may be it would be curious for you to know how I came to find the animal, so I'll tell you.

"The first thing I did after leaving here was to climb the hill yonder" — here Norman pointed to a long hill that sloped up from the opposite shore of the lake, and which was the direction he had taken, as Basil and François had gone right and left.

"I saw neither bird, beast, nor track, until I had reached the top of the hill. There I got a good view of the country ahead. I saw it was very rocky, without a stick of timber, and did not look very promising for game. 'It's no use going that way, I says to myself; 'I'll keep along the ridge, above where Frank's gone. He may drive some varmint out of the hollow, and I'll get a crack at it, as it comes over the hill.'

"I was about to turn to the left when I heard the skreek of a bird away ahead of me. I looked in that direction; and, sure enough, saw one wheeling about in the air, right above the rocky jumble with which the country was covered

"Now it's a mighty curious bird that I saw. It's a sort of an owl, but, I should say myself, there's a sprinkling of the hawk in it — for it's as much like the one as the other."

"No doubt," interrupted Lucien, "it was one of the day owls of these northern regions, some of which approach very near to the hawks, both in shape and habits. This peculiarity arises from the fact of the long summer day — of weeks in duration — within the Arctic circle, requiring them to hunt for their prey just as hawks do; and therefore Nature has gifted them with certain peculiarities that make them resemble these birds. They want the very broad faces and large tufted heads of the true owls; besides the ears, which in the latter are remarkable for their size, and also for being operculated, or with lids, in the former are not much larger than in other birds of prey. The small hawk-owl (*Strix funerea*), which is altogether a northern bird, is one of this kind."

"Very well," continued Norman, "what you say may be very true, cousin Luce; I only know that the bird I am speaking about is a mighty curious little creature. It ain't bigger than a pigeon, and is of a mottled brown color; but what I call it curious for is this: — Whenever it sees any creature passing from place to place, it mounts up into the air, and hovers above them, keeping up a constant screeching, like the squalling of a child — and that's any thing but agreeable. It does so, not only in the neighborhood of its nest — like the plover and some other birds — but it will sometimes follow a travelling party for hours together, and for miles across the country. From this

circumstance the Indians of these parts call it the 'alarm bird,' or 'bird of warning,' because it often makes them aware of the approach either of their enemies or of strangers. Sometimes it alarms and startles the game, while the hunter is crawling up to it; and I have known it to bother myself for a while of a day, when I was after grouse. It's a great favorite with the Indians, though — as it often guides them to deer, or musk-oxen, by its flying and screaming above where these animals are feeding.

"Just in the same way it guided me. I knew, from the movements of the bird, that there must be something among the rocks. I couldn't tell what, but I hoped it would turn out to be some creature that was eatable; so I changed my intention, and struck out for the place where it was.

"It was a good half mile from the hill, and it cost me considerable clambering over the rocks before I reached the ground. I thought to get near enough to see what it was, without drawing the bird upon myself, and I crouched from hummock to hummock; but the sharp-eyed creature caught sight of me, and came screeching over my head. I kept on without noticing it; but as I was obliged to go round some large rocks, I lost the direction, and soon found myself wandering back into my own trail. I could do nothing, therefore, until the bird should leave me, and fly back to whatever had first set it a-going. In order that it might do so, I crept in under a big stone that jugged out, and lay quiet a bit, watching it. It soon flew off, and commenced wheeling about in the air, not more than three hundred yards from where I lay. This time I took

good bearings, and then went on. I did not care for the bird to guide me any longer, for I observed there was an open spot ahead, and I was sure that there I would see something. And sure enough I did. On peeping round the end of a rock, I spied a herd of about fifty deer. They were reindeer, of course, as there are no others upon the 'Barren Grounds,' and I saw they were all does — for at this season the bucks keep altogether in the woods. Some of them were pawing the snow to get at the moss, while others were standing by the rocks, and tearing off the lichens with their teeth. It so happened that I had the wind of them, else they would have scented me and made off, for I was within a hundred yards of the nearest. I was not afraid of their taking fright, so long as they could only see part of my body — for these deer are so stupid, or rather so curious, that almost any thing will draw them within shot. Knowing this, I practised a trick that had often helped me before; and that was to move the barrel of my gun up and down, with the same sort of motion as the deer make with their horns, when rubbing their necks against a rock or tree. If I'd had a set of antlers, it would have been all the better; but the other answered well enough. It happened the animals were not very wild, as, likely, they hadn't been hunted for a good while. I bellowed at the same time — for I know how to imitate their call — and, in less than a minute's time, I got several of them within range. Then I took aim, and knocked one over, and the rest ran off. 'That,' said Norman, "ended *my* adventure — unless you call the carrying a good hundred pounds' weight of deer-

meat all the way back to camp part of it. If so, I can assure you that it was by far the most unpleasant part."

Here Norman finished his narration, and a conversation was carried on upon the subject of reindeer, or, as these animals are termed in America, "caribou."

Lucien said that the reindeer (*Cervus tarandus*) is found in the northern regions of Europe and Asia as well as in America, but that there were several varieties of them, and perhaps there were different species. Those of Lapland are most celebrated, because they not only draw sledges, but also furnish food, clothing, and many other commodities for their owners. In the north of Asia, the Tungusians have a much larger sort, which they ride upon; and the Koreki, who dwell upon the borders of Kamschatka, possess vast herds of reindeer — some rich individuals owning as many as ten or twenty thousand!

It is not certain that the reindeer of America is exactly the same as either of the kinds mentioned; and indeed in America itself there are two very distinct kinds — perhaps a third. Two kinds are well known that differ from each other in size, and also in habits. One is the "Barren Ground caribou," and the other, the "Woodland caribou." The former is one of the smallest of the deer kind — the bucks weighing little over one hundred pounds. As its name implies, it frequents the Barren Grounds, although in winter it also seeks the shelter of wooded tracts. Upon the Barren Grounds, and the desolate shores and islands of the Arctic Sea, it is the only kind of deer found, except at one or two points, as the

mouth of the Mackenzie River — which happens to be a wooded country, and there the moose also is met with. Nature seems to have gifted the Barren Ground caribou with such tastes and habits, that a fertile country and a genial clime would not be a pleasant home for it. It seems adapted to the bleak, sterile countries in which it dwells, and where its favorite food — the mosses and lichens — is found. In the short summer of the Arctic regions, it ranges still farther north; and its traces have been found wherever the northern navigators have gone. It must remain among the icy islands of the Arctic Sea until winter be considerably advanced, or until the sea is so frozen as to allow it to get back to the shores of the continent.

The “Woodland caribou” is a larger variety — a Woodland doe being about as big as a Barren Ground buck — although the horns of the latter species are larger and more branching than those of the former. The woodland kind are found around the shores of Hudson’s Bay, and in other wooded tracts that lie in the southern parts of the fur countries — into which the Barren Ground caribou never penetrates. They also migrate annually, but, strange to say, their spring migrations are southward, while, at the same season, their cousins of the Barren Grounds are making their way northward to the shores of the Arctic Sea. This is a very singular difference in their habits, and along with their difference in bulk, form, &c., entitles them to be ranked as separate species of deer. The flesh of the Woodland caribou is not esteemed so good an article of food as that of the other; and, as it inhabit

a district where many large animals are found, it is not considered of so much importance in the economy of human life. The "Barren Ground caribou," on the other hand, is an indispensable animal to various tribes of Indians, as well as to the Esquimaux. Without it, these people would be unable to dwell where they do; and although they have not domesticated it, and trained it to draught, like the Laplanders, it forms their main source of subsistence, and there is no part of its body which they do not turn to some useful purpose. Of its horns they form their fish-spears and hooks, and, previous to the introduction of iron by the Europeans, their ice-chisels and various other utensils. Their scraping or currying knives are made from the split shin-bones. The skins make their clothing, tent-covers, beds, and blankets. The raw hide, cleared of the hair, and cut into thongs, serves for snares, bow-strings, net-lines, and every other sort of ropes. The finer thongs make netting for snow-shoes—an indispensable article to these people—and of these thongs fish-nets are also woven; while the tendons of the muscles, when split, serve for fine sewing-thread. Besides these uses, the flesh of the caribou is the food of many tribes, Indians and Esquimaux, for most of the year; and, indeed, it may be looked upon as their staple article of subsistence. There is hardly any part of it (even the horns, when soft) that is not eaten and relished by them. Were it not for the immense herds of these creatures that roam over the country, they would soon be exterminated—for they are easily approached, and the Indians have very little difficulty, during the summer season, in killing as many as they please.

Norman next gave a description of the various modes of hunting the caribou practised by the Indians and Esquimaux ; such as driving them into a pound, snaring them, decoying and shooting them with arrows, and also a singular way which the Esquimaux have of taking them in a pit-trap built in the snow.

“The sides of the trap,” said he, “are built of slabs of snow, cut as if to make a snow-house. An inclined plane of snow leads to the entrance of the pit which is about five feet deep, and large enough within to hold several deer. The exterior of the trap is banked up on all sides with snow ; but so steep are these sides left, that the deer can only get up by the inclined plane which leads to the entrance. A great slab of snow is then placed over the mouth of the pit, and revolves on two axles of wood. This slab will carry the deer until it has passed the line of the axles when its weight overbalances one side, and the animal is precipitated into the pit. The slab then comes back into a horizontal position as before, and is ready to receive another deer. The animals are attracted by moss and lichens placed for them on the opposite side of the trap — in such a way that they cannot be reached without crossing the slab. In this sort of trap several deer are frequently caught during a single day.”

Norman knew another mode of hunting practised by the Esquimaux, and proposed that the party should proceed in search of the herd upon the following day ; when, should they succeed in finding the deer, he would show them how the thing was done ; and he

had no doubt of their being able to make a good hunt of it. All agreed to this proposal, as it would be of great importance to them to kill a large number of these animals. It is true they had now provision enough to serve for several days — but there were perhaps months, not days, to be provided for. They believed that they could not be far from the wooded countries near the banks of the Mackenzie, as some kinds of the animal they had met with were only to be found near timber during the winter season. But what of that? Even on the banks of the great river itself they might not succeed in procuring game. They resolved, therefore, to track the herd of deer which Norman had seen; and for this purpose they agreed to make a stay of some days at their present camp.

CHAPTER XXXVIII.

A BATTLE WITH WOLVES.

NEXT morning they were up by early daybreak. The days were now only a few hours in length, for it was midwinter, and they were but three or four degrees south of the Arctic circle. Of course they would require all the day for the intended hunt of the caribou, as they might have to follow the track of the herd for many miles before coming up with the animals. Lucien was to remain by the camp, as it would never do to leave the animals they had already killed without some guard. To have hung them on the trees would have put them out of the reach of both wolves and foxes; but the lynx and wolverene are both tree-climbers, and could easily have got at them there. They had reason to believe there were wolverenes about; for these fierce and destructive beasts are found in every part of the fur countries — wherever there exist other animals upon which they can prey. Eagles, hawks, and owls, moreover, would have picked the partridges from the branches of the trees without difficulty. One proposed burying them in the snow; but Norman assured them that the Arctic foxes could scent them out, and dig them up in a few minutes. Then it was suggested to cover them under a pile of stones, as there were

plenty of these lying about. To this Norman also objected, saying that the wolverene could pull off any stones they were able to pile upon them — as this creature in its fore-legs possesses more than the strength of a man. Besides, it was not unlikely that one of the great brown bears — a species entirely different from either the black or grizzly bears, and which is only met with on the Barren Grounds — might come ranging that way; and he could soon toss over any stoneheap they might build. On the whole it was better that one of the four should remain by the camp; and Lucien, who cared less about hunting than any of them, willingly agreed to be the one.

Their arrangements were soon completed, and the three hunters set out. They did not go straight towards the place where Norman had found the deer upon the preceding day, but took a cross-cut over the hills. This was by Norman's advice, who guided himself by the wind — which had not changed since the previous day. He knew that the caribou in feeding always travel *against* the wind; and he expected therefore to find them somewhere in the direction from which it was blowing. Following a course which angled with that of the wind, they kept on, expecting soon to strike the trail of the herd.

Meanwhile Lucien, left to himself, was not idle. He had to prepare the flesh of the different animals, so as to render it fit to be carried along. Nothing was required further than to skin and cut them up. Neither salting nor drying was necessary, for the flesh of one and all had got frozen as stiff as a stone, and is

this way it would keep during the whole winter. The wolf was skinned with the others, but this was because his fine skin was wanted. His flesh was not intended to be eaten — although only a day or two before any one of the party would have been glad of such a meal. Not only the Indians, but the voyageurs and fur-traders, while journeying through these inhospitable wilds, are often but too delighted to get a dinner of wolf-meat. The ermine and the little mouse were the only other creatures of the collection that were deemed uneatable. As to the Arctic fox and the lynx, the flesh of both these creatures is highly esteemed, and is white and tender, almost as much so as the hares upon which they feed. The snowy owl too, the jerr-falcon, and the eagle, were looked upon as part of the larder — the flesh of all being almost as good as that of the grouse. Had it been a fishing eagle — such as the bald-head — the case would have been different, for these last, on account of their peculiar food, taste rank and disagreeable. But there was no danger of their falling in with a fishing eagle at that place. These can only exist where there is *open* water. Hence the cause of their annual migrations to the southward, when the lakes and rivers of the fur countries become covered with their winter ice.

Though Lucien remained quietly at the camp, he was not without adventures to keep him from wearying. While he was singeing his grouse, his eye happened to fall upon the shadow of a bird passing over the snow. On looking up he saw a very large bird, nearly as big as an eagle, flying softly about in wide circles. It was of a mottled-brown color; but its short

neck and great round head told the naturalist at a glance that it was a bird of the owl genus. It was the largest of the kind that Lucien had ever seen, and was, in fact, the largest known in America — the “great cinereous owl” (*Strix cinerea*). Now and then it would alight upon a rock or tree, at the distance of a hundred yards or so from the camp; where it would watch the operations of Lucien, evidently inclined to help him in dissecting some of the animals. Whenever he took up his gun and tried to approach within shot, it would rise into the air again, always keeping out of range. Lucien was provoked at this — for he wished, as a naturalist, to examine the bird, and for this purpose to kill it, of course; but the owl seemed determined that he should do no such thing.

At length, however, Lucien resolved upon a plan to decoy the creature within shot. Taking up one of the grouse, he flung it out upon the snow some thirty yards from the fire. No sooner had he done so, than the owl, at sight of the tempting morsel, left aside both its shyness and prudence, and sailed gently forward; then, hovering for a moment over the ground, hooked the grouse upon its claws, and was about to carry it off, when a bullet from Lucien’s rifle, just in the “nick of time,” put a stop to its further flight, and dropped the creature dead upon the snow.

Lucien picked it up and brought it to the camp, where he passed some time in making notes upon its size, color, and other peculiarities. The owl measured exactly two feet in length from the point of the bill to the end of the tail; and its “alar spread,” as naturalists term it, was full five feet in extent. It

was of a clove-brown color, beautifully mottled with white, and its bill and eyes were of a bright gamboge yellow. Like all of its tribe that winter in the Arctic wilds, it was feathered to the toes. Lucien reflected that this species lives more in the woods than the "great snowy owl," and, as he had heard, is never found far out on the Barren Grounds during winter. This fact, therefore, was a pleasant one to reflect upon, for it confirmed the testimony which the travellers had already obtained from several of the other creatures they had killed — that is to say, that they must be in the neighborhood of some timbered country.

Lucien had hardly finished his examination of the owl, when he was called upon to witness another incident of a much more exciting nature. A hill, as already mentioned, or rather a ridge, rose up from the opposite shore of the lake by which the camp was pitched. The declivity of this hill fronted the lake, and sloped gradually back from the edge of the water. Its whole face was smooth and treeless, covered with a layer of pure snow. The camp commanded a full view of it up to its very crest.

As Lucien was sitting quietly by the fire, a singular sound, or rather continuation of sounds, fell upon his ear. It somewhat resembled the baying of hounds at a distance; and at first he was inclined to believe that it was Marengo on a view-hunt after the deer. On listening more attentively, however, he observed that the sounds came from more than one animal; and also, that they bore more resemblance to the howling of wolves than the deep-toned bay of a bloodhound.

This, in fact, it was; for the next moment a caribou shot up over the crest of the hill, and was seen stretching at full gallop down the smooth declivity in the direction of the lake. Not twenty paces in its rear followed a string of howling animals, evidently in pursuit of it. There were a dozen of them in all, and they were running exactly like hounds upon the "view holloa." Lucien saw at a glance they were wolves. Most of them were dappled-gray and white, while some were of a pure white color. Any one of them was nearly as large as the caribou itself; for in these parts — around Great Slave Lake — the wolf grows to his largest size.

The caribou gained upon them as it bounded down the slope of the hill. It was evidently making for the lake, believing, no doubt, that the black ice upon its surface was water, and that in that element it would have the advantage of its pursuers, for the caribou is a splendid swimmer. Nearly all deer when hunted take to the water — to throw off the dogs, or escape from men — and to this habit the reindeer makes no exception.

Down the hill swept the chase, Lucien having a full view both of pursuers and pursued. The deer ran boldly. It seemed to have gathered fresh confidence at sight of the lake, while the same object caused its pursuers a feeling of disappointment. They knew they were no match for a caribou in the water, as no doubt many a one had escaped them in that element. It is not likely, however, that they made reflections of this sort. There was but little time. From the moment of their appearance upon the crest

of the hill till the chase arrived at the edge of the lake, was but a few seconds. On reaching the shore the caribou made no stop, but bounded forward in the same way as if it had been springing upon water. Most likely it expected to hear a plunge; but, instead of that, its hoofs came down upon the hard ice; and, by the impulse thus given, the animal shot out with the velocity of a skater. Strange to say, it still kept its feet; but, now seemingly overcome by surprise, and knowing the advantage its pursuers would have over it upon the slippery ice, it began to plunge and flounder, and once or twice came to its knees. The hungry pursuers appeared to recognize their advantage at once, for their howling opened with a fresh burst, and they quickened their pace. Their sharp claws enabled them to gallop over the ice at top speed; and one large brute that led the pack soon came up with the deer, sprang upon it, and bit it in the flank. This brought the deer upon its haunches and at once put an end to the chase. The animal was hardly down upon the ice, when the foremost wolves coming up, precipitated themselves upon its body, and began to devour it.

It was about the middle of the lake where the caribou had been overtaken. At the time it first reached the ice, Lucien had laid hold of his rifle and run forward in order to meet the animal half way, and, if possible, get a shot at it. Now that the creature was killed, he continued on with the design of driving off the wolves, and securing the carcass of the deer for himself. He kept along the ice until he was within less than twenty yards of the pack, when, seeing that

the fierce brutes had torn the deer to pieces, and perceiving, moreover, that they exhibited no fear of himself, he began to think he might be in danger by advancing any nearer. Perhaps a shot from his rifle would scatter them, and without further reflection he raised the piece, and fired. One of the wolves kicked over upon the ice, and lay quite dead; but the others, to Lucien's great surprise, instead of being frightened off, immediately sprang upon their dead companion, and commenced tearing and devouring it, just as they had done the deer!

The sight filled Lucien with alarm; which was increased at seeing several of the wolves — that had been beaten by the others from the quarry — commence making demonstrations towards himself! Lucien now trembled for his safety, and no wonder. He was near the middle of the lake upon slippery ice. To attempt running back to the camp would be hazardous; the wolves could overtake him before he had got half way, and he felt certain that any signs of fear on his part would be the signal for the fierce brutes to assail him.

For some moments he was irresolute how to act. He had commenced loading his gun, but his fingers were numbed with the cold, and it was a good while before he could get the piece ready for a second fire. He succeeded at length. He did not fire then, but resolved to keep the charge for a more desperate crisis. Could he but reach the camp there were trees near it, and one of these he might climb. This was his only hope, in case the wolves attacked him, and he knew it was. Instead of turning and running for this point, he began to back for it stealthily and with cau-

tion, keeping his front all the while towards the wolves, and his eyes fixed upon them. He had not got many yards, when he perceived to his horror, that the whole pack were in motion, *and coming after him!* It was a terrible sight, and Lucien, seeing that by retreating he only drew them on, stopped and held his rifle in a threatening attitude. The wolves were now within twenty yards of him; but, instead of moving any longer directly towards him, they broke into two lines, swept past on opposite sides of him, and then circling round, met each other in his rear. *His retreat was cut off!*

He now stood upon the ice with the fierce wolves forming a ring around him, whose diameter was not the six lengths of his gun, and every moment growing shorter and shorter. The prospect was appalling. It would have caused the stoutest heart to quail, and Lucien's was terrified. He shouted at the top of his voice. He fired his rifle at the nearest. The brute fell, but the others showed no symptoms of fear; they only grew more furious. Lucien clubbed his gun — the last resort in such cases — and laid around him with all his might; but he was in danger of slipping upon the ice, and his efforts were feeble. Once down he never would have risen again, for his fierce assailants would have sprung upon him like tigers. As it was, he felt but little hope. He believed himself lost. The teeth of the ferocious monsters gleamed under his eyes. He was growing weaker and weaker, yet still he battled on, and swept his gun around him with the energy of despair.

Such a struggle could not have continued much longer. Lucien's fate would have been sealed in a very few minutes more, had not relief arrived in some

shape or other. But it did come. A loud shout was heard upon the hill ; and Lucien, glancing suddenly towards it, saw several forms rushing downward to the lake ! It was the hunting party returned, and in a moment more they were crossing the ice to his rescue. Lucien, gaining confidence, fought with fresh vigor. The wolves, busy in their attack, had either not heard or were regardless of the new-comers ; but the “ crack, crack ” of the guns — repeated no less than four times — and then the nearer reports of pistols, made a speedy impression upon the brutes, and in a short while half their number were seen tumbling and kicking upon the ice. The rest, uttering their hideous howls, took to flight, and soon disappeared from the valley ; and Lucien, half dead with fatigue, staggered into the arms of his deliverers.

No less than seven of the wolves were killed in the affray — two of which Lucien had shot himself. One or two were only wounded, but so badly, that they could not get away ; and these were handed over to the tender mercies of Marengo, who amused himself for some time after by worrying them to death.

The hunting party had made a good day of it. They had fallen in with the caribou, and had killed three of them. These they were bringing to camp, but had dropped them upon the hill, on perceiving the perilous position of Lucien. They now went back, and having carried the deer to their camping place, were soon engaged in the pleasant occupation of eating a savory dinner. Lucien soon recovered from his fright and fatigue, and amused his companions by giving an account of the adventures that had befallen him in their absence.

CHAPTER XXXIX.

END OF THE "VOYAGE."

OUR party remained several days at this place, until they had made a fresh stock of 'pemmican' from the flesh of the caribou, several more of which they succeeded in killing; and then, arranging every thing anew, and taking with them such skins as they wanted, they continued their journey.

They had two days' hard travelling through a rocky mountainous country, where they could not find a stick of wood to cook their meals with, and were exposed to cold more than at any other place. Both François and Lucien had their faces frost-bitten; but they were cured by Norman, who prevented them from going near a fire, until he had well rubbed the parts with soft snow.

The rocks through which they passed were in many places covered with the *tripe de roche* (*Gyrophora*) of several species; but our voyageurs cared nothing about it so long as their pemmican lasted, and of that each of them had nearly as much as he could carry.

In the most dreary part of the mountains they chanced upon a herd of those curious animals, the musk oxen, and shot one of them; but the meat tasted so rank, and smelt so strongly of musk, that the whole of it was left to the wolves, foxes, and other preying creatures of these parts.

On the third day, after leaving their camp by the lake, a pleasant prospect opened before them. It was the valley of the Mackenzie, stretching to the west, and extending north and south, as far as the eye could reach, covered with forests of pine and poplar, and other large trees. Of course the landscape was a winter one, as the river was bound up in ice, and the trees themselves were half white with frozen snow; but after the dreary scenery of the Barren Grounds, even this appeared warm and summer-like. There was no longer any danger they should be without a good fire to cook their dinners, or warm themselves at, and a wooded country offers a better prospect of game. The sight, therefore, of a great forest was cheering; and our travellers, in high spirits, planted their tent upon the banks of the great northern river. They had still many hundred miles to go before arriving at their destination; but they determined to continue their journey without much delay, following the river as a guide. No more "near cuts" were to be taken in future. They had learned from their recent experience that "the shortest way across is sometimes the longest way round," and they resolved to profit by the lesson. I hope, boy reader, you too will remember it.

After reaching the Mackenzie the voyageurs halted one day, and upon the next commenced their journey down stream. Sometimes they kept upon the bank, but at times, for a change, they travelled upon the ice of the river. There was no danger of its giving way under them, for it was more than a foot in thickness, and would have supported a loaded wagon and horses, without even cracking.

They were now drawing near the Arctic circle, and the days grew shorter and shorter as they advanced. But this did not much interfere with their travelling. The long nights of the polar regions are not like those of more southern latitudes. They are sometimes so clear that one may read the smallest print. What with the coruscations of the aurora borealis, and the cheerful gleaming of the northern constellations, one may travel without difficulty throughout the livelong night. I am sure, my young friend, you have made good use of your globes, and need not be told that the length of both nights and days, as you approach the pole, depends upon two things — the latitude of the place, and the season of the year; and were you to spend a whole year *leaning against the pole itself*, (!) you would *live but one day and one night* — each of them six months in length.

But no doubt you know all these things without my telling you of them, and you are impatient to hear, not about that, but whether the young voyageurs safely reached the end of their journey. That question I answer briefly at once — they did.

Some distance below the point where they had struck the Mackenzie, they fell in with a winter encampment of Dog-rib Indians. Some of these people had been to the Fort to trade; and Norman being known to them, he and his Southern cousins were received with much hospitality. All their wants were provided for, as far as it lay in the power of these poor people to do; but the most valuable thing obtained from the Indians was a full set of dogs and dog-sledges for the whole party. These were furnished

by the chief, upon the understanding that he should be paid for them on his next visit to the Fort. Although the reindeer of North America are not trained to the sledge by the Esquimaux and Indians, several kinds of dogs are; and a single pair of these faithful creatures will draw a full-grown man at a rate that exceeds almost every other mode of travelling — steam excepted. When our voyageurs, therefore, flung away their snow-shoes, and, wrapped in their skin cloaks, seated themselves snugly in their dog-sledges, the five hundred miles that separated them from the Fort were soon reduced to nothing; and one afternoon, four small sledges, each carrying a "young voyageur," with a large bloodhound galloping in the rear, were seen driving up to the stockade fence surrounding the Fort. Before they had quite reached the gate, there was a general rush of trappers, traders, voyageurs, *coureurs-des-bois*, and other *employés* to reach them, and the next moment they were lost in the midst of the people who crowded out of the Fort to welcome them. This was their hour of happiness and joy.

To me there is an hour of regret, and I hope, boy reader, to you as well — the hour of our parting with the "YOUNG VOYAGEURS."

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